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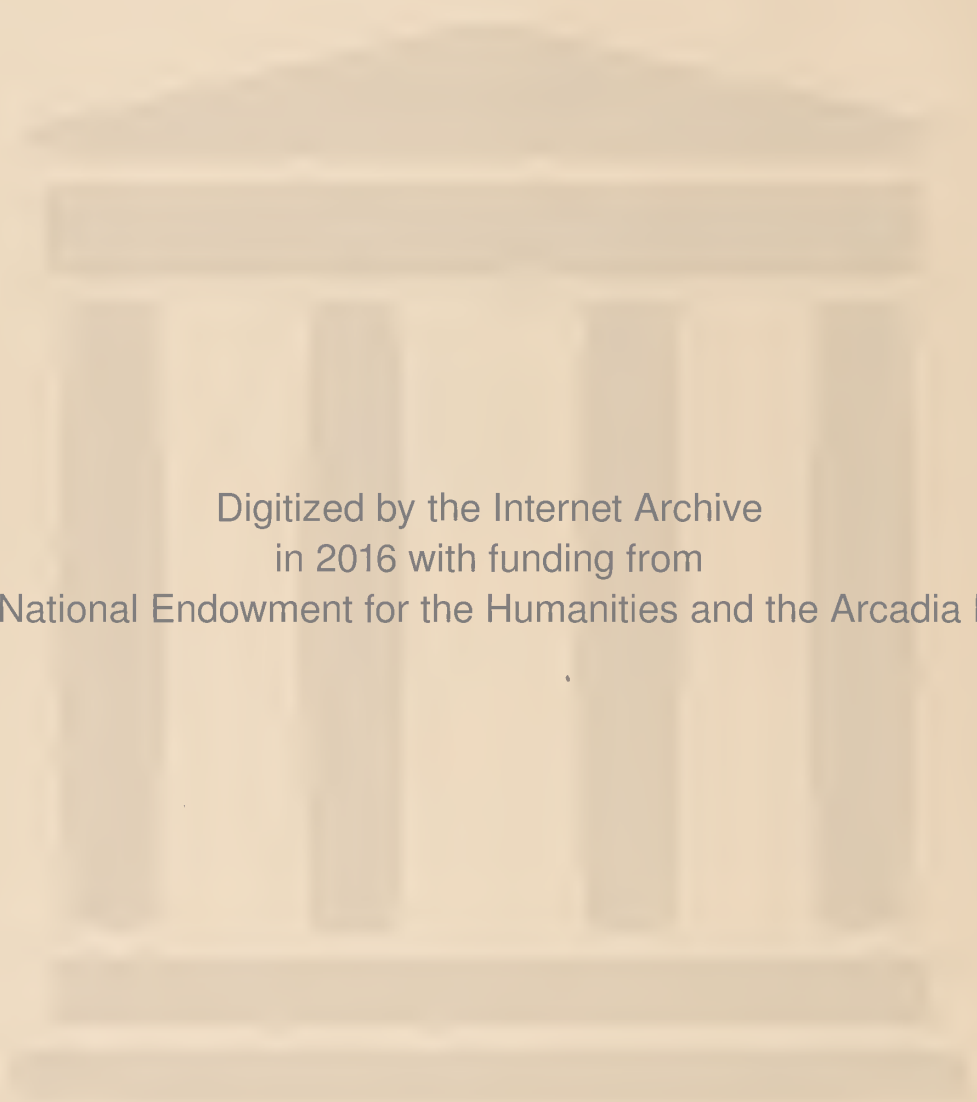
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The  
Rhode Island Medical Journal

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Vol. XXIX, 1936

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OF MEDICINE

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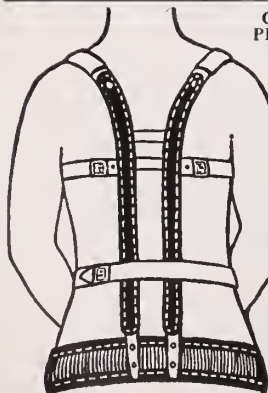
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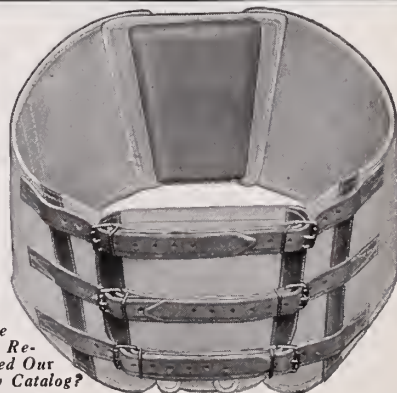
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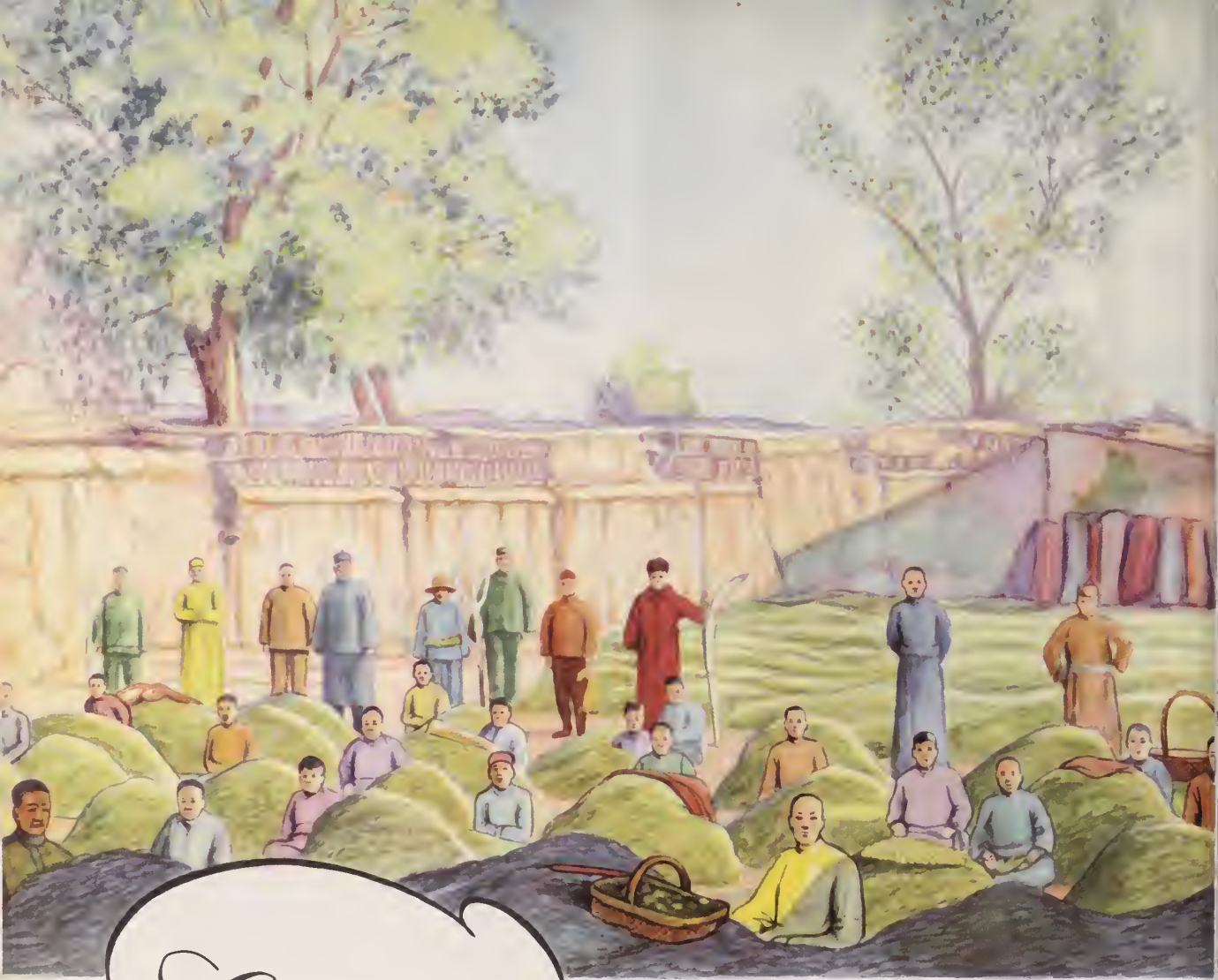
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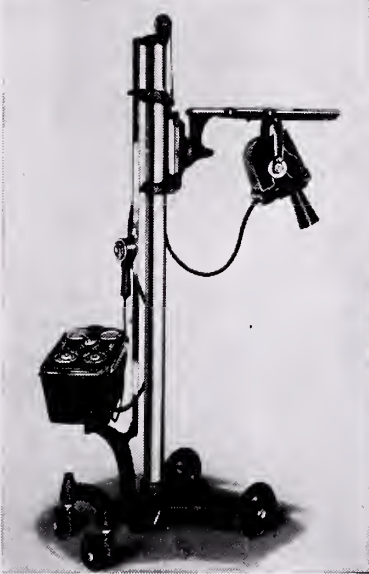
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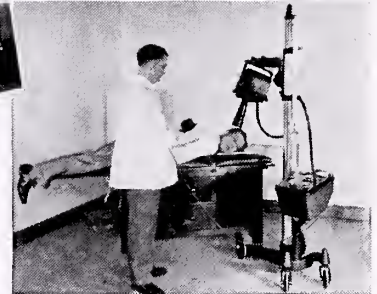
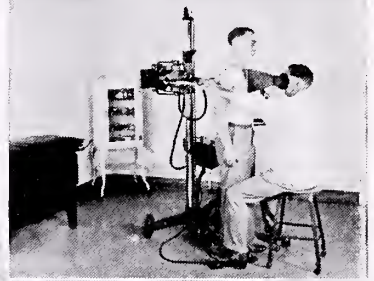
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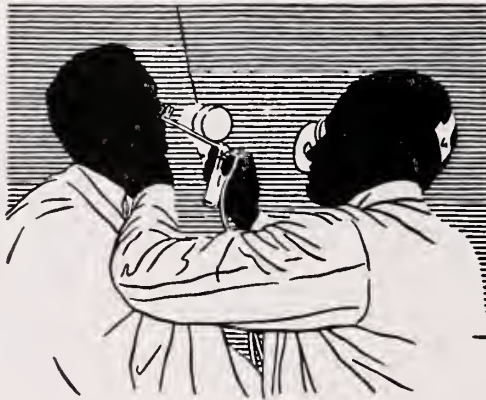
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# THE RHODE ISLAND MEDICAL JOURNAL

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## ORIGINAL ARTICLES

### THE DOCTOR LOOKS AT THE CULTS!\*

By CHARLES L. FARRELL, M.D.  
23 WEST AVENUE, PAWTUCKET, R. I.

Consider the osteopath! At the present time in Rhode Island the average layman regards him the same as the regular physician. The term osteopathic physician no longer conveys any distinction except possibly the added ability to use massage or manipulative therapeutics.

This is not surprising, for the laity never investigate the qualifications of those whom they call to care for them in illness—but it is surprising that more physicians are not informed as to the nature of osteopathy and the ability of those who profess it.

The medical profession realizes that it will always have a certain number of secondary practitioners, that is, persons who claim to be able to perform certain limited services in the field of health, mid-wives, optometrists, chiroprodists, etc., and also a certain number of irregulars, that is, osteopaths, chiropractors, new thought healers, etc., and the attitude has been more or less indifference toward them. When any one group that has been treated with indifference begins to legislate itself into the same standing as the medical profession, it is time that something was done, not to protect the medical profession but to protect the general public—which sorely needs it.

I have never been sympathetic with the attitude of letting the public patronize the cults if they so desire and then let them find out later that they have been duped. I believe that it is the solemn duty of the medical profession to protect the people from charlatans and quackery and that the education of the people in the matters of health must be undertaken by us.

I was impelled to make a study of the situation regarding osteopathy because as secretary of the committee on Medical Economics and Legislation

of this society, I had contact with a group of representative osteopaths at the legislative hearings on the proposed Basic Science Law. It was the duty of our committee to examine all bills relating to health that were introduced in the State Legislature. Among others was a bill, House 712, introduced by the osteopaths which removed any and all restrictions now placed on them. Let me quote from the bill: "Section 10—a certificate to practice osteopathy confers upon the holder thereof the same rights and privileges and the same duties and obligations as a certificate to practice medicine," etc. Further on, we read, "All government regulations concerning public health shall apply equally to doctors of osteopathy and osteopathic organizations as to doctors of medicine and medical organizations."<sup>1</sup> This is vicious legislation! The osteopaths hope to have the legislatures do for them what their medical colleges failed to do, that is, make them doctors in every sense of the word.

A few years ago, most osteopaths practiced a form of massage which they called "adjustment." Many neurotic persons had "adjustments" apparently without any harm resulting and the medical doctor, with his tongue in his cheek, recognized that the cult was supplying a mental peace to the inferior minds that needed a placebo. The practice has changed however and the average physician has not been aware of it. Let us compare osteopathy then and now.

Osteopathy was founded on June 22, 1874, by one Andrew Taylor Still who had been a farmer, preacher, healer and frontiersman in Kansas and Missouri. In that same year, Missouri passed its first law regulating medicine and Still was registered as a physician and surgeon but there is no record of his ever having received a degree in Medicine.<sup>2</sup> He claimed to have taken a course of instruction in a Kansas City school of Physicians and Surgeons in the early sixties but in 1861 he formed a company of militia and served during the Civil War. The osteopathic magazine for June 1935, the official organ of the American Osteopathic organization in its story of A. T. Still says, "When he decided to become a physician he read under his father and later pursued studies in a medical school," and

\*Read before the Rhode Island Medical Society, September 5th, 1935.

further on, we read, "over and over, for 10 years, he asked himself these two questions, 'What is health?' and 'What is disease?'—out of his answers grew the science of osteopathy.<sup>3</sup> The theory of osteopathy can best be explained in the language of the man who should know most about it, its founder, Andrew Taylor Still.

"Osteopathy deals with the body as an intricate machine, which, if kept in proper adjustment, nourished and cared for, will run smoothly into a useful old age. As long as the human machine is in order, like the locomotive or any other mechanical contrivance, it will perform the functions for which it was intended. When every part of the machine is *adjusted* and in perfect harmony, health will hold dominion over the human organism by laws as natural and immutable as the law of gravitation. Every living organism has within itself the power to manufacture and prepare all chemicals, materials and forces needed to build and repair itself, together with all the machinery and apparatus required to do this work in the most perfect manner, producing only the substances that can be utilized in the economy of the individual. No material other than food and water, taken in satisfaction of the demands of normal appetite (not perverted taste) can be introduced from the outside *without detriment*."

### *The Osteopathic Principle*

The principle underlying the Science of Osteopathy is therefore based upon the recognition of the living human body as a composite of mechanical, chemical and mental attributes, and that harmonious action within the organism can proceed only from complete co-operation or "adjustment" between these various factors.

Health being predicated upon harmonious adjustment of the organism, along mechanical, chemical, dietetic, and mental lines, it follows that *disease must be a perversion of some one or more of these factors*. The function of the Osteopathic physician is to seek out the cause and remove it, whether it be within or without the organism. Thus is readily demonstrated the breadth of the application of this great principle and the broad learning essential to its successful application.

*The distinctive contribution of Osteopathy to medical science* consists in the discovery of the far-reaching and manifold effects of slight disturbance of anatomic relations on body health.

In treatment, *this discovery is utilized for the adjustment of the various parts of the body to one another*. These disturbed relations may occur in any of the structures of the body, so that we may have faulty adjustment of bones, muscles, ligaments, nerves, organs or even of cells. *The effort of the Osteopathic physician is to locate the cause of the disturbance and to adjust this cause to the normal.*"<sup>4</sup>

At the present time in Rhode Island, osteopaths are not permitted to write prescriptions and they are particularly anxious to have this restriction removed. I, therefore, questioned their committee at the State House last January as to why they wanted to administer drugs when their osteopathic principles were against it and I quoted from the above paragraph. To my amazement, they refused to be bound by this principle, or even to agree with it, because it was read to them from a catalogue of the Massachusetts College of Osteopathy, an unrecognized school. They had no answer when I informed them it was the word of their founder, A. T. Still. Further conversation with these osteopaths, elicited the belief that osteopathy was but one therapeutic measure in their armamentarium and it was no longer regarded as a separate theory of disease. Therefore, I studied the catalogues of all the osteopathic colleges in this country expecting to find a renouncement of all Still's original principles and a general replacement with regular medicine. As it happens, such is not the case—but we will consider that later.

According to "The Healing Cults" by Louis C. Reed, the evolution of osteopathy from 1900 to the present day has been a process of "broadening." The "broadening" process was the cause of much discord and A. T. Still opposed it to the end. He never countenanced the use of drugs or vaccines.<sup>2</sup> In fact it was the death of three of his children of meningitis which caused him to break from regular medicine.

Morris Fishbein in "Fads and Quackery in Healing" says, "It is interesting to think that there might have been no osteopathy if the knowledge of the present day had been available for the family of Andrew Still."<sup>5</sup> With this, I am inclined not to agree. It was ten years later that Still thought up osteopathy and such an individual would have found another excuse any way.

Still wrote a book called "Philosophy and Mechanical Principles of Osteopathy" in which he



shows complete ignorance of the established facts of medical science of his time.<sup>2</sup> In 1892, Still founded the American School of Osteopathy which continues today as the Kirksville College of Osteopathy and Surgery. In the foreword of their 1935 catalogue, they restate the principles of osteopathy as laid down by Still and add, "*nearly sixty years of critical tests has not been able to modify these fundamental truths in any particular way. They were true then and they stand true and proved today.*" At the bottom of the same page, we read, "from its first establishment the osteopathic school has taught the use of antiseptics and anesthetics, of paracitides of antidotes in poisoning, and of narcotics for the relief of pain and other emergency measures in practice. However, the chief emphasis was and continues to be the teaching of the greatest therapeutic principle in the world today—'the adjustment of structural derangements to make possible normal functioning capacity'—which is the application of the fundamental principle of Dr. Still's original pronouncement."

So much for Kirksville, perhaps the other colleges are different; but no, the catalogues of Philadelphia, Chicago, Massachusetts, Kansas City, and Des Moines, all adhere on one hand to the principles of Still and on the other include all regular medical courses with the exception of materia medica. The Kansas City college catalogue states, p. 15, "the course of study is much like that in any medical college with the chief emphasis on the adjustment of structural derangements to make possible normal physiological functioning. It is due to the fact that the osteopathic physician in possibly 90% of his cases uses no drugs or chemical agent that he is known as a "drugless physician" and yet the *Kirksville* catalogue states explicitly that osteopathy has never been a drugless school of practice.

Walter J. Greenleaf, specialist in Higher Education in the office of education, U. S. Department of Interior, has written a pamphlet, "Osteopathy as a Career" which is sent by one osteopathic school with its catalogue and therefor with its approval. He says, "Unlike medical colleges, the Osteopathic Colleges teach only limited materia medica but substitute principles of osteopathy. Pharmacology is taught in some of the colleges and medical therapeutics replaced by osteopathic therapeutics while the practice of medicine is replaced by the practice of osteopathy according to the osteopathic viewpoint."

I have examined carefully the catalogues of these institutions; they read well, sound interesting and they would mislead the average individual, but a more careful perusal of their contents discloses that the faculty, though imposing on paper, are not possessed of any preliminary scientific training or adequate qualifications to be professors in an institution of higher learning—much less a medical school. In two of the seven colleges, there are physicians, graduates of Class A medical schools on the faculty, four in Chicago and one in Philadelphia. In two others, there are doctors, one a graduate of a Class C medical school, the other, no record of his graduation could be found; it is assumed that his degree is spurious. It would be tedious and uninteresting were I to discuss fully each and everyone of these catalogues but perhaps I can picture conditions in the schools more truly if I quote from notes made by an impartial investigator whose original report I have been privileged to read.<sup>6</sup> Dr. Frederick Etherington, dean of Queens University, Faculty of Medicine, in company with Dr. E. Stanley Ryerson, were delegated to visit leading osteopathic schools and report how far the training given to students of osteopathy compared with that required of their own students in medicine. Their report is an extensive one and they have covered the field most thoroughly. I wish it were possible to give in detail many pages of it. A summary of their findings may be found in the Proceedings of the Annual Congress on Medical Education, Hospitals and Licensure, Chicago, February 18-19, 1935. In the investigation of these schools they attended several lectures and I might summarize their impressions by stating that the professors were oratorical enough, but not very impressive, with very little continuity of thought, and only very general ideas expressed, with little doubt of either real scientific background or knowledge. They visited a clinic which consisted of a series of booths. "In the first booth, a young girl complained of some pain in her neck. The student seemed to be aimlessly moving her head from side to side and up and down. In the second booth, there were two students, one of whom with his coat off said he had pain in his back and the other was giving him a treatment by pushing and shoving the shoulder back as he lay on his back. They were told that this same form of treatment might be used for bronchitis or asthma. In another booth, there was a man about 50 years of age who had been attending

the clinic for lues of the lung and locomotor ataxia who had received arsenic and bismuth treatment. The student hammered on his face and was raising both legs and hyper-extending his back. The man was not undressed. In the next booth, there was a woman about 50, very stout, lying on her back. She had been complaining of pain in her feet in addition to other symptoms. It was obvious that she had a marked hallux valgus and was overweight. The student had not removed her stocking to make a diagnosis but was moving the toes in all directions as a means of giving treatment. In the next booth a man of about 30 years of age complained, according to the student, of asthma and chronic bronchitis. He had his coat off, and his shirt on, and the student was shoving his back and shoulders in various ways. He said that he was giving a general treatment. In the next booth was a woman about 25 to 30 years of age, lying on her face with all her clothes on and the student said that he was treating the dorsal and lumbar sacral region. It was relaxation and correction treatment. The diagnosis recorded in her chart was bilateral brachial neuritis."<sup>6</sup>

"You would expect to find physiotherapy an important part to an osteopath's education. As it happens the department is almost neglected. In the osteopathic hospitals, the interns gave osteopathic treatment to patients in their beds twice a day unless an order was given to the contrary. The treatment was essentially spinal; if a heart case, dorsal region was treated; if a kidney, the lower dorsal; if pelvic, the lumbar; if a tonsil or head case, the cervical region. The autopsy records of the hospital consisted of less than a page of type-written notes of cases upon who post mortems had been performed. The shortest report was still-birth. The matter recorded was very general and diffuse and showed almost a total lack of scientific record of pathological changes in the various organs of the body. The pathological report in one of the appendix cases described the appendix as 1½" long with some debris in the lumen, diagnosis—chronic appendix. When asked the use of the patients in the hospital for teaching the students the dean said that ward walks were conducted daily. The professor who conducted the ward walks when asked the matter of teaching stated that it consisted of teaching the students their relation to the patient in the way of questioning them, of demeanor and of handling them in general. As far as the committee could gather, actual clinics with

small group of students as a method of teaching were not given at the hospital nor as the committee learned later in any of the other osteopathic hospitals or clinics."<sup>6</sup>

A consideration of other colleges will be a repetition of this report but one cannot leave the schools without one word for dear old Kirksville, parent school of osteopathy. The student who applies for information at Kirksville receives in addition to a catalogue, a book, entitled "Your Future" which is a sales argument for osteopathy using every appeal from the scientific to the ridiculous; in addition, he will receive a book of photographs of the buildings, student life on the campus and in the laboratory, in the most approved advertising style. This college is the largest of all schools and is located in the Northwestern part of the state of Missouri. I have talked with a recent graduate of Kirksville who is a pleasant agreeable, sincere and intelligent individual, filled with a confidence of a knowledge of osteopathy, and who had a sort of evangelistic zeal. I was blandly informed that the professor had reduced six congenital dislocations of the hip by his special method last year, and this is Kirksville—with a population of 7200, 18% of which are students and located 200 miles north of St. Louis, on the Wabash railroad.

The prospective student of osteopathy is flooded with sales pamphlets and letters. In some instances personal letters as well as college journals are received. The material in the College Journal published by the Kansas City School contains so-called "scientific" papers by osteopaths who show no hesitancy in quoting freely from the works of regular medical practitioners dealing with medical practice at absolute variance to the principles of osteopathy but the osteopath always excuses it by assuring his readers of the educational need of osteopathy in these conditions. An advertisement in this Journal described the collected papers of Dr. George J. Conley, President of the Osteopathic Association, and extolled the doctor's ability in surgery by stating "he wields a knife that is thoroughly osteopathic."<sup>7</sup> A large part of the Journal is devoted to testimonial letters and poems as well as articles calculated to work up enthusiasm for osteopathy. One osteopath is forever patting the other's back. Listen to the modest account of one retiring enthusiast: "Another woman arrived a week or so ago who was dreadfully ill. She had never contacted osteopathy. She leads a laxative life. That morning she took a dose



of castor oil; she was nauseated and vomited freely with no bowel movement. I gave her one of my famous one hand five to six minute treatments and "presto chango" her bowels moved voluminously. Her wretchedness disappeared and she was happy and she promised to follow my advice and place herself in the hands of an osteopath and overcome her laxative life."<sup>7</sup>

Let us look in at a clinical lecture as reported by Dr. Etherington. "The first patient is a Mrs. K., age 58, widow, with three children, dressed in street clothes. History is as follows: Weakness and loss of voluntary control. General health was good. Eating and sleeping all right. Bowels and urine all right but no laboratory tests whatsoever had been made. She had stubbed her toe and fallen forwards and following this she had what she thought was a stiff neck. Lateral X-ray films of her neck which the professor stated showed some dropped relation of the atlas with the axis and occiput and of the curve in the cervical region were described, and seen by no one but the lecturer. He thought another one should be taken in the A.P. position through the open mouth. From the examination of the neck, he said that he was unable to say just what was the matter. Palpation suggested an impaction. There was some tension and restricted movement. The patient said that it felt as though her head were drawn back and that she was apt to fall if she walked on account of sense of insecurity. He said that she had some oral sepsis, a systolic murmur at the apex but no disturbance in the size or position of the heart. The patellar reflexes were a little bit prominent but her biceps and triceps reflexes were diminished. The Romberg sign was inactive. Pupillary reflexes were normal. No examination was made of the fundus of the eyes or of sensation in any part of the body. On the basis of these examinations one could wipe out any organic disease of the central nervous system he stated. He said that the power of her grip was weak as was also the power of her legs. There was no wasting in the hands. He did not know what to say about the diagnosis. He suggested that it was a multiple peripheral neuritis, three cases of which he had seen in thirty years, more data would have to be obtained. He asked the patient if she had been to other doctors and she said that she had been to a chiropractor, medical doctor and an osteopath and that the doctor had diagnosed her condition as multiple sclerosis of the spinal cord. He thought that this favored with his suggestion of multiple

peripheral neuritis. The treatment should be: 1. rest, avoid getting tired, 2. clearing up foci of infection, 3. increase fluid intake, 4. osteopathic treatment to mobilize the spine, then improve all circulation. It would increase the patient's resourcefulness, improve her nutrition and elimination."<sup>8</sup>

Need I go on describing osteopathic colleges and faculties, equipment and modes of teaching of the men connected with it. I have quoted extensively from Dr. Etherington's report because in no other way can I actually present incontrovertible facts. There are those of us who look upon the osteopaths in our community as being almost the same as regular doctors. I have been told that they study the same as we do, from the same textbooks, and they are able to take the same examinations we take. In New England there are few, if any, informed enough to refute these claims and I have been forcefully struck by the willing acceptance of osteopaths in Rhode Island by the regular medical practitioners and I have been astounded at the assistance rendered them by reputable surgeons, such as helping them operate, or operating with them, or going to the osteopathic hospital and working there. It is by such methods as these that the osteopaths gather unto themselves dignity and standing to which they are not entitled. I have enough material in my files to permit me to talk to you continually for a week or more, but I have tried to give you the highlights and point out to you what must be by now self-evident — that osteopathy, founded originally by Andrew Taylor Still as a means of adjusting the body to meet the diseased conditions, has made no progress since the day it was born. Before osteopathic schools raised their standards to include four years of high school and in some cases one year college work, the average student was of a very poor grade consisting mostly of those whose educational training did not permit them to attend medical school; but with the present situation, it is pathetic that young men and women of intelligence and good preliminary training are deluded into the study of osteopathy believing that they will have professional standing especially when we consider it costs from 800 to 1000 dollars a year for four years under very poorly trained teachers. When students of this calibre after graduating become conscious of their inferiority and attempt to legislate for themselves privileges to which they are not entitled, they must be stopped. The tendency of legislatures to grant osteopaths unlimited scope of practice is due largely

to the extravagant and undisputed claims made by their representatives before legislative bodies. They constitute a group of substandard medical practitioners and dilute the quality of medical care available to the community. The reasons that have led to high standard medical practitioners make undesirable any body of practitioners whose qualifications are of low order.<sup>2</sup>

To summarize—in the preceding remarks I have endeavored to point out: First, too little is known by both physicians and laity about osteopathy; second, because of the indifference of organized medicine toward the local situation regarding osteopathy they have gathered unto themselves dignity and privileges to which they are not entitled; third, there is a determined attempt on the part of the osteopaths in Rhode Island to legislate themselves into the same standing as regular practitioners. They desire to be school physicians and health officers. They desire to write prescriptions—and this in spite of the fact that the most recent pronouncements of their authorized schools reiterate their belief in osteopathy as originally defined, and definitely state their limitations as regards pharmacology; as well as the frank substitution of osteopathic therapeutics and osteopathic medicine in place of materia medica and practice of medicine. Fourth, I have endeavored to show the lack of qualifications of the instructors in their schools and totally inadequate facilities found therein and the absurdity of their treatment and clinical instruction. Fifth, we have a duty to protect the public from such quackery and we should endeavor to save the helpless youth who graduates from our high schools from embarking on such a course of folly. Sixth, the remedy is at hand, still higher requirements to practice the healing art such as the basic science law will check these individuals in a fair and impartial manner. After all, it is the practitioner's privilege to treat the patient any way he so desires especially so if it satisfies that patient, but we want to be sure that first he recognizes the condition he is treating and has been exposed to at least a safe minimum of general training. We in the medical society hope to put through a basic science law. So far we have not succeeded, but we have made definite progress. You have no realization of the outrageous and extravagant claims made before legislative bodies by the irregular practitioners, and we are always put in the position of being afraid of the irregulars and jealous of "our hold on the people as a medical trust." Sympathy is always with the under dog and the irregulars have the unhappy faculty of posing as martyrs, denied

their constitutional rights, persecuted, hampered by the medical practitioners and prevented from giving their blessing to mankind.

We have attended these hearings in all our dignity and sobriety and announced our attitude in a few well chosen words, to be confronted with ridicule and abuse on the part of the irregulars. Strong forces are at work; these people are subtle. In every city that there has been established an osteopathic hospital or clinic, they have been able to raise money by public subscription. There are always plenty of people to give a few dollars to any cause from the establishment of a home for indigent cats to the building of a hospital to promote irregular forms of medicine and, the fault lies wholly at the door of the medical profession because each and every individual in these other cults strive together for the common good while the doctors are too prone to concern themselves with scientific assemblies and neglect the more material side of the professional responsibility in public health.

I am somewhat of an optimist. I believe I see signs of a change and I hope in the future as each medical student leaves college and takes his internship, he will begin to pick up that spirit of responsibility for the welfare of the profession and that he will carry it out with him as he enters the community where he is to practice by joining as soon as possible the staff of the local hospital and the local medical society, participating in its activities, stepping forward and equally shouldering his part of the burdens and responsibilities that go with being a doctor. This is the only way that we can combat what promises to be a definite threat not only to the welfare of the people to whom we are pledged to serve, but to our very own welfare to which we have become at last aroused. The old policy which consisted of ignoring the irregulars and let the poor fools, who will, patronize them must be discarded, and a sense of civic duty and responsibility recognized wherein we assume the role which is rightfully ours, namely, guardians of the public health in all its phases—just as the clergy are the guardians of the public morals of all creeds.

#### BIBLIOGRAPHY

1. House bill No. 712: Rhode Island House of Representatives, January session 1935.
2. Reed, Louis C.: The Healing Cults. Publication No. 16 of Committee on Costs of Medical Care.
3. Osteopathic Magazine, June 1935.
4. Still, Andrew Taylor: "Philosophy and Mechanical Principles of Osteopathy."
5. Fishbein, Morris: "Fads and Quackery in Healing."
6. Etherington, Frederick: "Report of Investigations of Four Colleges of Osteopathy in United States."
7. College Journal: Kansas City College of Osteopathy.

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To all Humanity is extended the Season's

# Greetings

The Rhode Island Medical Journal



## EDITORIALS

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### WHAT ARE WE DOING ABOUT IT?

On other occasions the RHODE ISLAND MEDICAL JOURNAL has called attention to the encroachment on medicine of lay organizations. These bodies have been particularly active during the past few years. They may be divided into two groups.

Both groups have as a common text for their activity that medicine, as practiced, has failed. Lately they have added to their text such adjectives as miserably, wholly, and completely.

The first division assert their plan will produce better and cheaper medical care. In short they will do a better job than is now being done by the doctors. The public is generally apathetic to arguments of this group, and does not share in its child-like simpleness. The layman knows that he had better leave medical work to medical men. The first group will always be with us, will never need answering, and will never get any results.

The second division, however, presents a different problem. This group is not interested in the improvement of medicine or medical treatment. Medicine is merely a stepping stone to another end. Medicine lends itself to political plans because it appears to be guided by an altruistic spirit. Those composing the second group are the most practical minded politicians. They have no illusions. With them results, however obtained, are what count. Their right hand doesn't know and never will know what the left is doing. Innocent looking bills come before Congress. The bills contain innocent appearing clauses, which later have a very far reaching effect on the practice of medicine. Certain individuals in high political positions are given wide powers over the health of the nation. That politician incidentally is not a doctor.

It is time for organized medicine to strike back. Very few of the rank and file of politicians in either party tolerate antagonizing 98,000 doctors in one single body. If an earnest start is made now, more than fine phrases will be forthcoming before election time.

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### RURAL MEDICINE

Whether the recent lean years have made opportunities that were formerly frowned upon seem more desirable; or whatever the cause, there seems to be a very definite increase in the number of young physicians who are settling in the rural districts.

Whether they remain to become respected and substantial citizens of their community, or only serve a few years to gain the very best possible preliminary training for special work, is not of importance. In fact that decision may be made with all deliberation after a comfortable remuneration is established.

If the advantage of rural life for a physician in this locality, that is Rhode Island and nearby Massachusetts and Connecticut, are surveyed they will be found to be many. Medical and social isolation, formerly the greatest causes of discontent, are now almost entirely removed. Not only are through highways and collaterals improved, but recently many rural roads have been improved to such an extent that they present a good hard surface the year around. The last fifteen years have produced so many good small hospitals, that it would be hard to find an area with a fifteen mile radius that is not supplied with excellent emergency and operative facilities. In fact some country physicians find time to go daily to nearby medical centers and engage in regular hospital service.

Most villages at the present time are well supplied with electricity. This means that an electric range and electric refrigeration, together with oil heat, give the housewife all the advantages that are to be had in a large city. The local movie house probably shows the same pictures, only a little later, than are seen on Broadway.

The young doctor who elects to live in the country should realize that he is not to be socially isolated. He must, on the other hand, be far more socially inclined than his city brother, for his superior education and training will place him where his advice will often be sought on matters outside his profession. One may live a most isolated and anti-social—even lonely—existence in the midst of a big city, but not so in the country. Here, to be a successful doctor, one must be social to the extent of being a real lover of mankind, for to live unto oneself is not possible in a village.

With the advent of young and well trained medical men in our rural communities, there should be not only very much improved medical service, but the administration of many public health offices should improve, i.e., public health, school health and the little used but important office of medical examiner.

Let us hope for a return of the day when the village doctor will again be a respected, well trained, substantial member of each community.

## THE JOURNAL'S COLUMN

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To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

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### AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

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The various District Societies are earnestly urged to send transcripts of transactions, with special reference to change of officers, and also such "papers" as are read before these bodies, to the Editorial office of the Rhode Island Medical Journal, that the matter may be available for publication.

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### PURPURA HEMORRHAGICA\*

By MAURICE ADELMAN, M.D.

224 THAYER STREET, PROVIDENCE, R. I.

#### *Purpura Hemorrhagica as a Complication of Scarlet Fever*

Purpura in the acute form has long been recognized both as a distinct disease and as a complication of some of the following infections; typhoid fever, miliary tuberculosis, small pox, measles, and subacute bacterial endocarditis. It is also met with as a result of intoxication with some of the following substances: benzol, arsphenamine, aniline,

and quinine, which apparently act as a poison of the bone marrow and in the course of time cause a thrombo-cytopenia and purpura. This condition is defined as being one which is characterized by petechiae or ecchymoses of the skin, hemorrhage from the mucous membranes, normal coagulation time, a prolonged bleeding time, and a non-retractile blood clot and often a reduced platelet count. The occurrence of purpura as a complication of scarlet fever is relatively rare as shown by the dearth of cases reported in the literature and also by the fact that in over 6500 cases of scarlet fever treated at the Charles V. Chapin Hospital in the past 25 years the incidence of this complication was less than 1 in 1000 cases. The figures as to the incidence in males and females are inconclusive due to the small number of cases reported. The majority of cases are naturally in the childhood period, probably due to the fact that most cases of scarlet fever occur in children of school age or under.

In his discussion of this subject Wood-Smith groups these cases under three headings: purpura simplex—cases in which simple hemorrhages into the skin occur with little or no degree of malaise; purpura hemorrhagica—in which in addition to the hemorrhages into the skin there is bleeding from the mucous membranes and rather severe general constitutional disturbances; purpura fulminans, where large ecchymoses occur in the skin. These often go on to gangrene, but in the majority of these cases the patients rapidly get very ill and die within the first two days of the onset of the complication. The above types are not to be confused with the well recognized and now fortunately rare cases of so-called hemorrhagic scarlet fever in which the rash of the disease appears and in a matter of a few hours changes to an ecchymotic affair. These cases have often been regarded as being due to conditions other than scarlet fever, i. e., purpura fulminans, hemorrhagic small pox, meningococcus septicaemia, etc.

In the condition under discussion the purpuric manigestations appear during the latter half of the second or the third week of the disease. There appears to be no relation between the incidence of this condition and the severity of the original in-

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\*Read before the joint meeting of the Providence Medical Association and the Pediatric Society of Rhode Island at the May meeting, 1935.



fection, or the presence or absence of a previous blood dyscrasia either in the patient or members of his family. The purpuric spots appear first on the lower limbs and usually on the lateral aspects. If the attack is very mild only a few crops appear and they remain fairly well limited to the lower extremities. With increasing severity fresh crops appear on the upper extremities, the trunk and finally the head and neck are involved, with the mucous membranes of the mouth and nasal passages a site of ecchymosis and hemorrhage. In most of the cases there is a moderate to severe anemia and some diminution or even absence of platelets. A normal platelet count has however been reported in several instances. The urine at this stage will practically always contain either albumin or blood.

It is agreed by all observers that in order to have the characteristic picture of purpuric bleeding it must be necessary to have some injury to the endothelium of the capillaries or larger blood vessels. Beyond this the theories relative to the mechanism are varied and inconclusive. Seeliger found the giant cells of the bone marrow, which are now regarded as the parent cells of blood platelets, in normal numbers in the bone marrow but that their cytoplasm was lacking in granulations. Frank believes that for some unknown reason the spleen exerts an inhibitory influence on the formation of platelets. Katznelson feels that the spleen is destroying the platelets more rapidly than is normal for some reason which we do not as yet know. Another group of students of this matter feel that the condition is basically due to an abnormal capillary permeability to blood and that the platelets in the circulating blood are used up in a futile attempt to defend these weak areas in the endothelium. The experiments of Bedford and of Aschoff and Krogh would seem to bear out this theory in cases where there is considerable hemorrhage into the skin and viscera. On the whole it would seem to be wiser to assume a toxic agent of bacterial or other nature as the primary cause of the endothelial damage and the subsequent bleeding. The presence of platelets and their number would therefore depend on the ability of the platelet forming organs to make good the numbers lost by their use in defending the endothelial structures and still keep a number free in the circulation. Rolleston and McCririck's case was one of the most severe type of purpura with no diminution in the platelet count while the case of Wood-Smith reported four years ago showed a rather mild case of purpura with rather severe thrombopenia. Cer-

tain it is, that the cases coming to autopsy show a much greater anemia than would be expected to be found either judging from the duration of the disease or the amount of blood known to be lost or extravasated.

Treatment of this condition is necessarily rather vague and more or less symptomatic. The majority of the cases were treated with liver extracts in one form or another, injections of various types of serum, and transfusions. Liver was apparently given empirically, and the serums were given with the idea of perhaps obtaining some hemostatic effect from the horse serum or at least a non-specific protein reaction. Transfusions were given to make up blood loss, counteract the anemia and perhaps stimulate hematopoiesis. Most of the authors convey the impression that the ultimate result in any individual case was not much affected by the treatment given. In severe cases associated with gangrene of the extremities, like the one reported by Dick, Miller and Edmonson, amputations have been found necessary. In the majority of these cases the gangrene sets in between the fourteenth and the twenty-first day of the illness. Of eleven cases reviewed the gangrene was limited to the legs in ten cases, of which seven were unilateral and three were bilateral. In one case the hands only were involved and in one case both hands and both feet were gangrenous and finally came to amputation. In eight of these cases pathological examinations of the gangrenous extremities showed four cases of thrombosis of the artery of which one was embolic from cardiac vegetations. One case showed soft clots which were not adherent to the wall of the artery and vein. In two cases no evidence of either thrombosis or embolism could be found.

#### *Report of a Case*

L. C., aged 7 years, the oldest of 3 children. One brother and 1 sister who are twins. The sister has coeliac disease which is doing well under treatment. Family history and past history were entirely negative except for frequent colds and an operation for removal of tonsils and adenoids 4 years ago. Mild attack of pertussis in April, 1934. No family history of hemophilia purpura, or other blood disease.

Took sick with fever and vomiting on the eleventh of November, 1934. The following day was seen and a diagnosis of typical scarlet fever was made, and patient was transferred to the Chapin Hospital in attempt to protect other members of



the family. At this time the child did not appear to be sick, and aside from the rash, a red throat and a temperature of 99.4 appeared to be feeling and acting well. Course of the disease was most uneventful and on the eighth day the temperature, pulse and respiration were normal and they remained so for one week. At this time pulse and temperature rose from 80 to 110 and 98 to 99 respectively. The patient at this time had a crop of punctate purpuric spots appear on the flanks and thighs and the urine contained a small amount of albumen and some white cells for the first time since the second day following admission. Successive crops of ecchymoses appeared until the whole body was rapidly covered and a severe nose bleed started as well as oozing from the gums, buccal mucous membranes and from puncture wound in lobe of ear. The next morning many new ecchymoses were present and also a crop of urticaria spots which was quite troublesome and for which no cause could be found. . . . The following four days were along the same line; the bleeding into the skin and from the mucous membranes continued, the cervical glands became very large, the anemia grew rapidly and progressively worse, the face became waxy and puffy and the pulse ranged between 110 and 120 and the temperature between 99 and 100. At no time was any enlargement of spleen made out. On the second of December for the first time the oozing ceased and the puffiness of the face decreased and the child appeared somewhat more comfortable and cheerful. From this time on the glands of the neck and in the groins began to decrease in size and no new hemorrhages appeared. Three days later the nose again began to bleed profusely and the septum had to be cauterized with silver nitrate and the nose packed daily for three successive days. Three days later, on the thirteenth of December, the pulse and temperature were normal and the ecchymoses were beginning to resolve and the puffiness and glandular swelling had disappeared. From this time on convalescence was slow but uneventful. Daily blood examinations were made from the time of the appearance of the first crop of ecchymoses until the acute stage had been long over with. The following is the average of these examinations. Red blood cells 4,500,000 . . . white blood cells 9,600 hgbn. 65% polymorphonuclears 57% Polymorph. eosinophiles 2% polymorph. basophiles 1% small lymphocytes 19% medium sized lymphocytes 3% large lymphocytes 2% atypical lymphocytes 4% lymphocytes young forms 3% lymphoblasts 5% monocytes 2% and

myelocytes 2%. Stained smear shows nothing abnormal in the red cells but an almost complete absence of platelets.

Two weeks after the onset of the purpura blood examinations were of the following type. PMN 40% PME 2% lymphos 55% monos 3%; some of the polymorphonuclears showed toxic granules.

At this time X-rays were taken of all the long bones and the para-nasal sinuses and nothing abnormal was found.

One month later the white count was still around 9,000 and the differential count was as follows: PMN 51%, PME 3%, L 40%, M 6%.

Platelets are more numerous but still much fewer than is normal and larger in size. The platelets were of the type seen in purpuras.

One week ago blood examination revealed a hgbn. of 76% Sahli, wbc. 7,600, PMN 55% LL 10 SL 34 Trans 1. Platelets more nearly normal in size and appearance and on count 160,000. Clinically at this time the child seems to be normal in every respect and is engaging in the usual activities of a boy of his age.

In conclusion: A case of mild scarlet fever is reported in which on the tenth day a moderately severe thrombopenic purpura developed. With the purpura were certain blood findings and clinical manifestations which made the differential diagnosis between purpura and a severe leukemia difficult if not impossible. The well known variability of the blood in young children and the scarcity of reported cases makes the prognosis rather difficult. Treatment was entirely symptomatic and transfusions were not given. It would seem as though the prognosis in these cases, judging from the cases reported in the literature, is good in those cases which do not die within 72 hours of the onset of this complication.

#### BIBLIOGRAPHY

- Musser, John H. and Wintrobe, Maxwell M.: Practice of Medicine Tice. Vol. 6.  
 Dick, G. and Miller, E. M. and Edmondson, H.: Am. Journ. Dis. of Children, 47; 373-377, Feb. 1934.  
 Stein, F.: Beitrage Path. Anat. 4 Z. Allg. Path., 91: 202-224, 1933.  
 Goodall, E. W.: British Journ. Dis. of Children, 30:117-119, April-June 1933.  
 Lavezzo, P.: Semena Med., 1:1345-1346, April 28, 1932.  
 Gibson, A. H. and Hobson, F. G.: Lancet, 1:509-511, March 5, 1932.  
 Wood-Smith, T. G.: British Journ. Dis. of Children, 28:273-281, Oct.-Dec. 1931.  
 Box, C. R. and Massingham, R.: Lancet, 1:295-296, Feb. 7, 1931.  
 Trewby, L.: Lancet, 1:78, Jan. 11, 1930.  
 Pratt, T. A. and Frew, H. W. O.: Brith. Med. Journ., 1:595-596, March 30, 1929.

## SOCIETIES

### THE PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the president, Dr. William P. Buffum, Monday evening, November 4, 1935, at 8:35 P. M. The records of the last meeting were read and approved. The following were elected to membership: Reginald A. Allen, Ernest D. Thompson, Clara Loitman-Smith and Bernard O. Wise.

The president announced the appointment of members of the committee on the Medical Care of Low Income Group, as follows:

Dr. Halsey De Wolf, Chairman  
 Dr. J. Murray Beardsley  
 Dr. Joseph L. Belliotti  
 Dr. Michael J. Nestor  
 Dr. Dennett L. Richardson  
 Dr. William S. Streker  
 Dr. Guy W. Wells  
 President ex Officio

Also the committee on Welfare of Deafened Children, as follows:

Dr. Frank W. Dimmitt, Chairman  
 Dr. N. A. Bolotow  
 Dr. Gordon J. McCurdy

And the committee on the Obituary of Dr. Francis J. Higgins, as follows:

Dr. Earl J. Brennan  
 Dr. Henry McCusker

The president then spoke on the coming Community Fund campaign.

A Panel Session on Diabetic Surgery and Arterial Disease of the Extremities in Diabetes was then held, the Panel consisting of:

Dr. Alex M. Burgess, Chairman  
 Dr. Lucius C. Kingman  
 Dr. Leland S. McKittrick of Boston  
 Dr. Howard F. Root of Boston  
 Dr. Shields Warren of Boston

Dr. Burgess made an introductory talk explaining the manner in which the Panel would be conducted and presented Dr. Shields Warren of Boston as first speaker. In diabetes the arteriosclerotic changes affect principally the extremities and heart. The calcification distinguishing the arterial changes due to the ordinary wear and tear of life plays a minor part in diabetes, the major change being a narrowing of lumen due to cholesterol deposits, these affecting the smaller vessels as well. As this occurs gradually, a collateral circulation is

built up and when infection, which is the outstandingly serious factor occurs, a moist type of gangrene results. An excellent series of microscopic views illustrated this. Next Dr. Howard F. Root gave the medical viewpoint. 70% of diabetics have complications, and diagnosis is not easy. When surgery is contemplated, it is desirable to have 24 to 72 hours in the hospital preoperatively. Insulin should be given if sugar is present, there should be free use of liquids and plenty of carbohydrates. Post-operatively liquids and high carbohydrates with care. He emphasized the difficulties and dangers of insulin therapy. Lately a new insulin has been produced with a different protein content, giving a more gradual and longer lasting effect. Dr. Lucius C. Kingman emphasized the need of cooperation between surgeon and internist and the balanced judgment in deciding the advisability and extent of surgery in diabetes.

Dr. Leland S. McKittrick cited a number of cases showing the difficulty in distinguishing diabetic emergencies from operative conditions. Extreme care in history and examination are imperative as diabetics do not have normal response. More pathology may be expected than the symptoms suggest.

Questions were asked by Drs. Chafee, Wells, Sundin, Kramer, Russell, Stebbins and McCurdy.

On request, Dr. Miller spoke on anesthesia.

Meeting adjourned at 10:35 P. M.

Attendance 200.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE,  
*Secretary*

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William P. Buffum, Monday evening, December 2, 1935, at 8:30 o'clock. The records of the last meeting were read and approved. An obituary on Dr. Francis J. Higgins was read by Dr. Henry McCusker. It was voted to spread this on the record and send copies to the MEDICAL JOURNAL and family. The following new members were elected: James R. McKendry, Charles P. Fitzpatrick, and John C. Ham.

The first paper of the evening, by Dr. Kalei K. Gregory of the Charles V. Chapin Hospital, was on "Some Clinical Aspects of the 1935 Epidemic of Anterior Poliomyelitis." There were 228 patients



admitted to the Hospital, 126 from Providence and 102 from nearby territory. The first case was on July 5th and the height of the epidemic was during August and September, there being 115 patients in the Hospital at one time. Other infections were very small in number during this time. Whereas the death rate in the 1931 epidemic was 7.8%, in this epidemic it was 7.1%. This is evidently a communicable disease originating in the nose and throat and having many carriers of a mild type. It isn't definitely recognized until the central nervous system is involved. The severity appears to decrease as the epidemic wanes. The treatment is unsatisfactory. The good results from convalescent serum are not conclusive. Pathological studies show that the damage is often done before signs appear. Therefore, to expect results, the serum must be given prophylactically during an epidemic.

In the early stages of paralysis quiet and protection is necessary but orthopedic measures should be started after tenderness is gone and earlier than formerly done. In respiratory paralysis the respirator is used for long periods, the muscles coming back to an encouraging extent. In two severe cases they attempted to keep down edema by the use of hypertonic glucose intravenously and magnesium sulphate intramuscularly. These recovered.

The second paper, by Dr. George M. Retan of Syracuse, N. Y., was on "The Treatment of Acute Poliomyelitis by Forced Perivascular Drainage." This was an analysis of 50 cases of polio treated last summer.

.375% salt solution is given intravenously at the rate of 10 cc. per pound of body weight per hour for 5 hours. By lumbar puncture small amounts of spinal fluid, rarely over 10-15 cc. in one-half hour, is drained intermittently. Further treatments are given at intervals of a few hours. It has been found that the blood volume is not affected by this.

Just how this treatment produces its effects is not clear as it has been apparently demonstrated that the polio virus travels through the axons.

Only severe cases have been treated and improvement has been noted in practically all cases within 2 hours of treatment. A series of slides showed the pathology and an analysis of the cases.

The third paper, by Dr. Maurice Brodie, New York City, was on "Present Problems of Poliomyelitis, Diagnosis, Treatment and Prevention." He started with the frank statement that we know nothing of diagnosis, epidemiology, treatment, or

prevention. While there appears to be 3 types, abortive, non-paralytic and paralytic, we can only suspect the first two in epidemics and the layman can diagnose the third. In examining the spinal fluid about all one can say is that a high cell count usually denotes severity and vice versa. He was pessimistic about the specific treatment with serum, as the virus apparently is fixed from the earliest stages in the nerve tissues. Small doses of virus apparently help to produce an active immunity but are dangerous. 5 cc. doses of formalized vaccine can be demonstrated to produce antibodies and may be valuable to produce mass immunization in epidemics, although we need to immunize 70 to save 1. Field studies are being conducted to determine its value.

The papers were discussed by Drs. Richardson, McLaughlin, Hughes, King of Fall River, Higgins, Gregory, Retan and Brodie.

In accordance with Article I, Section 6, of the By-Laws the Standing Committee made the following nominations for officers and committees for the year 1936:

For President—William S. Streker, M.D.

For Vice-President—Peter Pineo Chase, M.D.

For Secretary—Herman A. Lawson, M.D.

For Treasurer—Charles F. Deacon, M.D.

For Member of the Standing Committee for five years—William P. Buffum, M.D.

For Trustee of the Rhode Island Medical Library for one year—Clinton S. Westcott.

For Reading Room Committee—Elihu Wing, M.D.; Guy Wells, M.D.; Frank E. McEvoy, M.D.

For Delegates to the House of Delegates of the Rhode Island Medical Society: J. G. Walsh, M.D.; C. H. Woodmansee, M.D.; R. H. Whitmarsh, M.D.; V. J. Oddo, M.D.; W. Hindle, M.D.; C. W. Skelton, M.D.; P. P. Chase, M.D.; L. C. Happ, M.D.; W. C. Gordon, M.D.; W. M. Muncy, M.D.; J. J. McCaffrey, M.D.; C. B. Leech, M.D.; A. J. Pedorella, M.D.; J. M. Beardsley, M.D.; C. R. Doten, M.D.; H. J. Gallagher, M.D.; N. A. Bolo-tow, M.D.; J. Franklin, M.D.; C. Bradley, M.D.; W. S. Streker, M.D.; H. A. Lawson, M.D.; J. P. Eddy, 3rd, M.D.; D. V. Troppoli, M.D.; M. Adelman, M.D.; F. Ronchese, M.D.

Meeting adjourned 11:00 P. M.

Attendance 216.

Collation was served.

Respectfully submitted,

PETER PINEO CHASE,  
Secretary

RHODE ISLAND MEDICAL SOCIETY  
COUNCIL MEETING

Nov. 21, 1935

The regular quarterly meeting of the Council was held at the Medical Library Building on Thursday, Nov. 21, 1935, and was called to order by the President, Dr. Roland Hammond, at 4 P. M.

The Treasurer's report as follows was presented by the Treasurer, Dr. J. E. Mowry, and it was voted that it be recommended to the House of Delegates for adoption.

The Treasurer called attention to the fact that the investment of the Herbert Terry Fund, and the James H. Davenport Fund were subject to reinvestment, and it was voted that the Treasurer be empowered to sell the securities in which these Funds are invested, and invest the proceeds in Providence Gas Co. stock.

The application of Dr. Wm. S. Levy of Woonsocket for reinstatement was presented by the Secretary, and it was voted to reinstate Dr. Levy to membership.

An application for membership in the State Society was received from Dr. Sarah G. Wilbur, for many years a member of the Massachusetts Medical Society from which she retired in good standing in 1920. Dr. Wilbur is now a resident of West-erly, and it was voted that she be made an honorary member of the Rhode Island Medical Society.

Dr. Edwin G. Thompson having reached the age of retirement, and on receipt of written application it was voted to place Dr. Thompson on the list of retired members.

Dr. Wm. A. Horan appeared before the Council at his own request to ascertain the Council's attitude with reference to the patenting of a tool which he has devised for the drilling of various articles of industry, and which he has used in the drilling of bones in connection with his practice. It appears that this tool is a device whereby drilling may be done around a corner, and Dr. Horan expressed the desire to protect his interest in the invention by patenting it if such procedure is compatible with the code of ethics of this Society. Upon motion made and duly seconded, it was voted that the Council found it proper that Dr. Horan make application for a patent on the tool.

It was moved and seconded that it was the consensus of the Council that all Funds accruing to the R. I. Medical Society from any source shall be deposited with the Treasurer, and that all disbursements of funds shall be made by the Treasurer after approval of the account by the officer or committee incurring the indebtedness. It was so voted.

Adjourned.

Respectfully submitted,  
DR. J. W. LEECH, *Secretary*.

Budget — 1936

Collations and Annual Dinner .....	\$750.00
Expenses of Secretary .....	75.00
Printing and postage .....	150.00
Fuel .....	600.00
Gas .....	45.00
Electricity .....	85.00
Telephone .....	125.00
City water .....	15.00
House supplies and expenses .....	450.00
House repairs .....	300.00
Janitor .....	720.00
R. I. Medical Journal .....	400.00
Safe Deposit .....	7.00
Treasurer's Bond .....	25.00
Librarian .....	1,660.00
Delegate to American Medical Association .....	100.00
Medical Library Association Dues .....	10.00
Sunday Lectures, January and February .....	125.00
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	\$5,642.00

*Income for 1936*

Annual dues .....	\$4,650.00
Interest from Harris Fund .....	206.00
Interest from Morgan Fund .....	22.50
Providence Medical Association .....	450.00
Use of Building .....	50.00
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	\$5,378.50
Balance in Bank November 1, 1935 .....	651.81
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	\$6,030.31

*Harris Fund*

Mortgage Security Corp. of America .....	
Central Arizona Light & Power Co. ....	\$ 50.00
General Public Utilities Co. ....	156.00
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	\$206.00

*James R. Morgan Fund*

Missouri Power & Light Co. ....	\$22.50
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*J. W. C. Ely Fund*

Rhode Island Public Service Co. ....	\$74.00
Mechanics National Bank .....	

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\$74.00

*Frank L. Day Fund*

Canadian National Railway .....	\$135.00
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*Herbert Terry Fund*

Missouri Public Service Co. ....	
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*James H. Davenport Fund*

Monongahela West Penn Pub. Service Co. ....	\$55.00
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Nov. 21, 1935

## HOUSE OF DELEGATES

The regular quarterly meeting of the House of Delegates was held at the Medical Library Building, on Thursday, Nov. 21, 1935, and was called to order by the President, Dr. Roland Hammond, at 5 P. M.

A verbal report of the Council meeting held immediately preceding this session was presented by the Secretary.

The Treasurer's report as approved by the Council was adopted by vote of the House of Delegates.

It was voted to fix the membership dues for 1936 at \$10.00.

The following report of the Committee on Change in By-Laws, of which Dr. A. T. Jones is chairman, was presented by Dr. N. Garrison in the absence of the chairman of the committee:

"In reply to the postcards which were sent to all members of the Rhode Island Medical Society two hundred and fifty were returned signifying their choice for one Annual Two-Day Meeting:

193 from Providence

19 from Pawtucket

38 from outside these 2 cities—Total 250.

The number of cards returned signifying their choice for Quarterly Meetings was thirty:

21 from Providence

5 from Pawtucket

4 from outside these 2 cities—Total 30.

The number of cards returned signifying their choice for Semi-Annual Meetings was two.

The sending of these cards was an attempt to obtain the opinion of the majority of the members regarding a change from Quarterly Meetings to an Annual Meeting of two days. Although there seems to be a large majority, as indicated by this straw vote, in favor of a change, it has come to the notice of your committee that several members who at first favored the change to one meeting do not feel the same about it now, and feel that we should have at least Semi-Annual Meetings.

In view of the general turbulent conditions, economically and otherwise, at this time your committee does not see fit to make recommendations but merely to make this report. It also feels that if the House of Delegates wishes to make a change from the present status if best come from a recommendation of the House of Delegates as a body and not as a recommendation of this Committee.

Respectfully submitted,

DR. ARTHUR T. JONES,

DR. CHARLES F. GORMLY,

DR. NORMAN S. GARRISON.

It was voted to accept and place on file the report of this Committee.

The question of change in the number and time of the meetings of the R. I. Medical Society was

discussed by Doctors Mowry, Skelton, DeWolf, Rocheleau, Helfrich, Chase, Gormly, and Leech.

The subject brought out a diversity of opinion as to the desirability of making any change in the meetings, and also a difference in opinion as to the number of meetings if the quarterly meetings should be discontinued.

On motion of Dr. Gormly, duly seconded, it was voted that the matter be laid on the table for one year, and to be an item of business at a meeting of the House of Delegates one year hence.

A report of the Committee on Cancer was presented by Dr. Herman C. Pitts, Chairman. On motion made and seconded, it was voted that the Committee on Cancer make up a panel of members of the Rhode Island Medical Society for the purpose of delivering addresses on the subject of cancer control to lay organizations on behalf of the R. I. Medical Society.

The Secretary presented the context of letters from the Medical Society of the District of Columbia, and from the Medical Society of New Jersey relative to the economic and social problems of the medical profession. The essence of these communications was apparently dissatisfaction with the activities of the American Medical Association along these lines, and these Societies had adopted resolutions urging the American Medical Association to intensify their efforts in instructing the medical profession as to its attitude toward these problems. Dr. Wells, delegate from the R. I. Medical Society to the American Medical Association, had pointed out that the American Medical Association was already doing practically all of the things which these societies requested, and the opinion was expressed that the R. I. Medical Society did not wish to place itself in the position of seeming to hurry the American Medical Association in its deliberations upon this important subject. On motion made and seconded that the matter be laid on the table, it was so voted.

Dr. C. F. Gormly, Chairman of the Committee on Medical Unemployment Relief, reported for his committee. He stated that Federal participation in the furnishing of funds for the unemployed has come to an end with the introduction of the Works Progress Act and the Public Works Act, thus eliminating the Federal Unemployment Relief Act. This means that State and local governments must provide for the indigent sick. The committee now has a plan which they are to present to the Governor providing for medical care of indigent sick under the new financial set-up. Briefly this provides for the maintenance of medical fees, standard obstetrical care, specialists' services, and consultations, the furnishing of apparatus where required, and advocates the appointment of a Medical Director. The report was accepted and placed on file.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*.

## COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

When a patient is perspiring excessively the salt loss must be made up.

\* \* \*

Many patients are weak because of lack of fat in the diet. Since the depression many patients have denied themselves of butter. They make up the deficiency with carbohydrates, which are quickly burnt and moreover are apt to be much more expensive in the long run.

\* \* \*

*Twitching Fingers Danger Signals at High Altitude.* Science News Letter, November 2, 1935.

\* \* \*

*Biopsy of the Sternal Bone Marrow.* Dameshek, Am. J. M. S., 746: 617, 1935, speaks of this procedure in cases of obscure anemia; it is of importance in the diagnosis of many cases of so-called Banti's disease, splenic anemia, aganulocytosis, aplastic anemia and pernicious anemia. Although its chief function is diagnostic, the biopsy has proven of great value as well in appreciation of the "central" character of the blood picture.

\* \* \*

*Childhood Ills Decrease as U. S. Grows Older.* Science News Letter, November 2, 1935. Measles and whooping-cough, both serious diseases of childhood, are on the decrease, it appears from figures reported by Dr. Haven Emerson, of Columbia University, to the American Public Health Association. The decrease has been particularly marked during the past five years, Dr. Emerson found. Deaths from both diseases and the number of cases of measles have been much fewer. This is not because of any improvement in measures to control the diseases, Dr. Emerson indicated. Instead, the decrease appears to be the result of a change in the age distribution of the population. Fewer children and more adults in the United States within the past decade is reflected in the decline of these childhood diseases. (A decrease in certain diseases seems to be accompanied by an increase in others.—M. W. T.)

\* \* \*

Dr. John A. Burnett (*Med. Economics*, Nov. 1935) gives a Brief for Brevity in medical literature. Physicians would welcome articles and books which contained boiled-down facts. Perhaps Mark Twain was right about Mary Baker Eddy when he said that she had a dictionary with diarrhea.

What formula could one give for attaining ripe old age? Some say excesses of tobacco, alcohol, etc. Each old man has his pet theory, but these theories are not worth much. If I were to venture a guess, I would say that moderation in eating and rest periods after meals are very important factors. The average man never relaxes. The German idea of relaxation was to drink beer and sleep. Americans "relax" by playing bridge, golf, going to night clubs.

\* \* \*

*Liver Treatment of Disseminated Sclerosis.* Gowlland (*Brit. M. J.*, 2: 277, 1935) reports several cases of disseminated sclerosis treated with liver extract and in 75 percent of the cases arrest in the progress of the disease was indicated and in all these was shown a distinct improvement in the general condition. (Optimistic. Others haven't seen the same results. Some observers have tried vitamin B extract for this condition without results. M. W. T.)

\* \* \*

*Treatment of Keloid.* Radium or X-ray.

\* \* \*

If Mussolini is willing to clean up the filthy diseases and filthy hygienic conditions in Ethiopia he is the only one who seems enthusiastic about the job. For the good of Ethiopia, it might be well to let him do it.

\* \* \*

Chronic suppurative ethmoiditis should be considered as a possible source of focal infection.

\* \* \*

*Observations on Urinary Calculi.* Higgins, *N. E. J. Med.*, 21: 1007, 1935, gives his results with the use of high vitamin A acid-ash diet in the treatment of urinary calculi. Some stones have undergone complete solution; some have remained symptom free for more than two years; some stones have diminished in size; no change in others. Higgins is quite certain that, if in addition to other therapeutic measures, a carefully planned diet is prescribed to which Vitamin A is added post-operatively, the recurrent formation of stones can be reduced to a maximum. Carotene-in-oil capsules, six a day for a month, is prescribed for vitamin A. After this time one capsule is taken each morning and night. (Does the vitamin A prevent further infection of the genito-urinary tract?—M. W. T.)



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(Penna. State Med. Jour., Oct. 1935.)

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(Med. Record, Dec. 5, 1934.)

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# CANNED FOODS AND THE PUBLIC HEALTH

## I. The "Ptomaines"

• Many requests received for further information on canned foods have inquired as to some of the public health aspects of this class of foods. We appreciate the frank interest of our readers in this subject about which so much misinformation exists. We are glad, therefore, to devote this discussion, as well as subsequent ones, to the most popular of the lay misconceptions concerning the wholesomeness of commercially canned foods.

Some laymen hold the belief that canned foods, in some mysterious manner, develop "deadly ptomaines" within the can and hence the consumer of such foods stands in danger of "ptomaine poisoning". In the light of modern knowledge, this belief is ludicrous; it probably had its origin in the old "ptomaine theory" of food poisoning, now so thoroughly discredited by modern medical authorities (1).

Between the years 1870 and 1880, a large number of substances were obtained from protein material which had undergone bacterial putrefaction. These substances were aptly called "ptomaines", from the Greek "ptoma" or "dead body". Toxicologists of the day ascribed marked toxic properties to the new found ptomaines, chiefly by injection studies rather than by feeding tests.

The science of bacteriology was then in

its infancy—the true causes of food infection or intoxications were not known. Consequently, the discovery of "ptomaines", with their alleged toxic properties, permitted the convenient diagnosis of "ptomaine poisoning" for all illnesses following the ingestion of foods. Today, we know that such illnesses usually result from the ingestion of food which had been infected by certain bacterial groups, and not from protein degeneration products such as ptomaines (2, 3).

One authority has stated that "ptomaine poisoning is a good term to forget" (4).

To this we might add that it would also be well to discard the old, unfounded belief that foods in the tin can develop substances hazardous to health.

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Such are the simple facts. The cooperation of the medical profession is earnestly solicited in combating the ludicrous, yet widespread, lay prejudice against commercially canned foods.

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(1) Journal American Medical Ass'n. 90,459 and 1573 (1928).

(2) Food-Borne Infections and Intoxications. F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1933.

(3) Food Poisoning and Food-Borne Infections. E. O. Jordan, University of Chicago Press, 2nd Ed., 1930.

(4) Preventive Medicine and Hygiene. M. J. Rosenau, Appleton-Century, New York, 6th Ed. 1927, p. 608.

*This is the ninth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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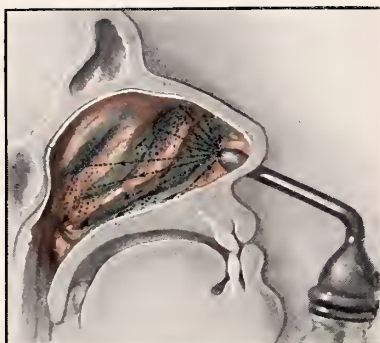
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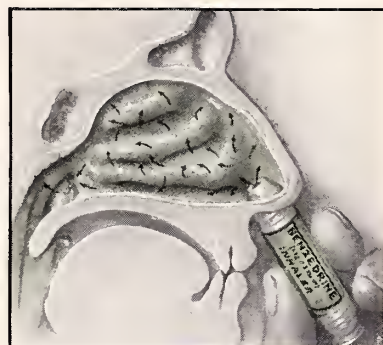
*Fig. 1.* The distribution of a liquid inhalant when applied by a dropper.

The solution does not reach beyond the lower border of the inferior turbinate, the bulk of the liquid gravitating to the pharynx. The spaces between the turbinates, where the congestion is greatest, have not been reached.



*Fig. 2.* The distribution of a liquid inhalant when applied by a spray or atomizer.

The inferior turbinate intercepts the bulk of the liquid intended for the middle and upper meati, sites of greatest congestion. The excess liquid is deflected to the roof of the hard palate, whence it reaches the pharynx.



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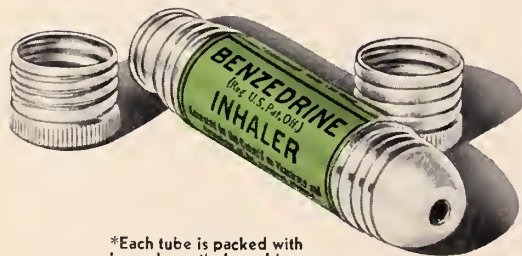
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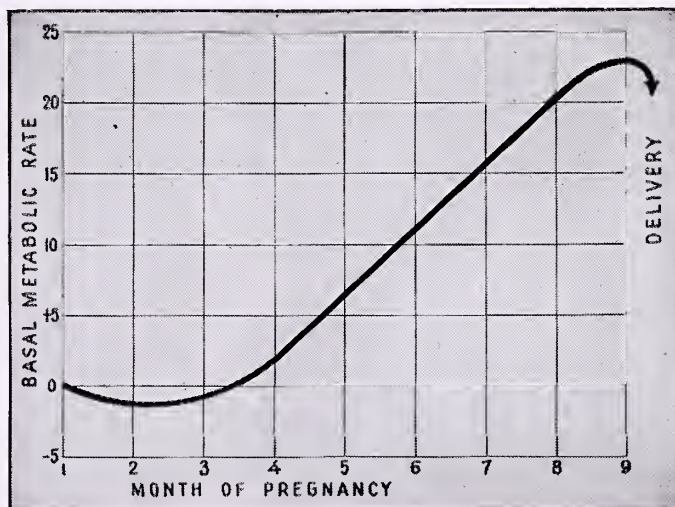
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## ORIGINAL ARTICLES

### ANNUAL ADDRESS BY THE PRESIDENT OF THE PROVIDENCE MEDICAL ASSOCIATION,

WILLIAM P. BUFFUM,  
122 WATERMAN ST., PROVIDENCE, R. I.

My last duty in office is to address you on the work and needs of the Association, but before this I want to say a word about the past year. The work has been a pleasure, every minute of it. The meetings have been of scientific character, which except under unusual circumstances I believe they should be, and the different committees without exception have done their duties well under the direction of able chairmen. The Committee on Relief Care under the F.E.R.A. by very strenuous and skilful efforts have been able to make this plan work reasonably well, and fortunately for them this work is finished. I feel that we owe a considerable debt of gratitude to Dr. DeWolf for his willingness to accept the chairmanship of the Committee on Medical Care of the Low Income Group. This study is very complicated and arduous and takes more time and effort than any physician usually expects to give to committee work.

Before I tackle my main subject, which is an economic one, I want to make an apology. This problem is entirely out of my line, and a presentation that is unworthy of a scientific body, is excusable only because of its importance at this time.

The subject is the Medical Care of the Low Income Group. In this group are included those families whose incomes cover the bare necessities of life, but which in the case of serious or protracted illness have no considerable funds to pay for medical care. Below this group are the indigent, who have not sufficient income for living and whose medical care is necessarily on a charitable basis. Above the low income group are the families whose incomes are more than enough to cover their basic needs,

and which theoretically at least should be able to obtain the services of a physician under all ordinary circumstances. Roughly speaking the low income group may include families with incomes between \$1,000 and \$1,500 a year. Of course it is evident that there are many complicating factors and that the need of each family must be judged on its own merits. I am mentioning these figures only to give a general indication of the type of families under discussion.

As to the amount of illness in these families I have few figures. In summarizing the results of very large and careful surveys conducted for the committee on the cost of medical care, Alden B. Mills<sup>1</sup> states that about seven days disabling sickness per person, per year, is the average. In considering these tables it must be remembered that the average person does not exist, that a few have much illness and that many have very little.

I have one interesting source of information on the relative amount of disease among the well to do and the poor, and that is Dr. Chapin's article<sup>2</sup> on death rates among the taxpayers and non-taxpayers. In getting these figures he had to go back to 1865, when there was an income tax, and the census list and the income tax list were both available. We need not go into this except to notice that he found the death rate among the non-taxpayers was more than double that among the taxpayers. This would indicate that, at that time at least, there was a very great deal more sickness among those with smaller incomes.

In the studies of the committee on the cost of medical care<sup>3</sup> it was reported that in the nation-wide study of 9,000 white families there was substantially the same amount of sickness among the various broad income groups. Data from the U. S. Public Health Service<sup>4</sup> show that in the group with income less than \$2,000 there is a definite relationship between poverty and amount of illness, the poor families having the more illness. At any rate these findings do not indicate that there is markedly less illness among the poor than among the well to do.

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In the United States as a whole, the lower the income, the less medical care is given. The following table was based on the study of 38,668 persons.<sup>3</sup>

TABLE 1.

HOME, OFFICE AND CLINIC CALLS BY PHYSICIANS  
PER 1,000 INDIVIDUALS IN ONE YEAR

<i>Family Income</i>	<i>No. of Calls</i>
Under \$1200	1931.9
\$1200-\$2000	2045.9
\$2000-\$3000	2296.7
\$3000-\$5000	2741.4
\$5000-\$10,000	3621.4
\$10,000 and over	4734.4
Services desirable (CCMC)	5649.5
From survey of 38,668 white persons, C.C.M.C.	

This table shows clearly that in the United States as a whole, the low income group is obtaining a small amount of physicians' services. How true this is in Providence we can only surmise as yet.

The distribution of sickness cost is very uneven. Even the low income group family might obtain enough medical services from his family physician to get by, if the expenses were average, but on the contrary the amount of illness varies so much that the average gives small comfort. The following table shows the uneven distribution of cost.<sup>3</sup>

TABLE 2.

ANNUAL CHARGES FOR MEDICAL CARE PER FAMILY  
WITH INCOME UNDER \$1200.

Under \$60	79.5%
\$60-\$100	9.9%
\$100-\$250	7.1%
\$250-\$500	2.5%
\$500 and over	1. %
3.5% of the families had charges of 30.9% of the total bill.	
8,581 white families, C.C.M.C.	

The next subject is income, how are incomes distributed. Table No. 3 is taken from "The Ability to Pay for Medical Care," by Louis S. Reed, Reprint No. 1684 from the Public Health Reports of the U. S. Public Health Service, and an estimate of my own.

TABLE 3.  
DISTRIBUTION OF INCOMES

<i>Incomes of Families</i>	<i>C.C.M.C. 1928</i>	<i>U.S.P.H. Survey of Relatively Poor Sections 1928</i>	<i>U.S.P.H. Survey of Same Families 1932</i>	<i>Estimate for Providence 1932</i>
Under \$1,200	21.3%	26.4%	66 %	47.2%
Under \$2,000	55.3%	64.9%	89.5%	61.4%
Under \$3,000	76.8%	89.1%	97.5%	78.6%

The estimate for Providence in 1932 was obtained by correlating the first three columns and adding 20% to the incomes. This result is a guess rather than an estimate. If this guess is reasonably correct, the median income of families in Providence is not far from \$1,200.

What is the lowest level at which families can be expected to pay anything for medical care? A great many figures have been published giving ideas of different groups as to the cost of a minimum subsistence standard of living.

TABLE 4.

ESTIMATES OF THE COST OF A "MINIMUM SUBSISTENCE"  
STANDARD OF LIVING<sup>5</sup>

<i>Locality</i>	<i>Size of Family</i>	<i>Cost at 1929 Prices</i>
Cleveland 1928	5	\$1,248.00
Chicago 1929	Mother and 4 children	1,054.00
Portland 1931	5	1,385.04
San Francisco 1931	5	1,383.20
New York 1931	5	1,353.47
By social agencies.		
These average \$1,285 at 1929 prices.		

If these figures are correct, nearly half the families of Providence are at or below the minimum subsistence level as calculated by these organizations.

I think it would be a mistake for me to try to make any clear cut deductions from this very superficial and hasty review of the medical-social situation. I am presenting it to you chiefly for consideration, so that we can form more correct ideas in the future. It does seem however that we can deduce that a very considerable proportion of the families are self-supporting but have no considerable funds to pay for sudden and serious illness.

The question will soon come up as to whether we should take some collective action to enable these families to get proper medical care and to pay for it in a self-respecting way, instead of either going without care or seeking charitable aid in the clinics and hospitals. Also some such plan might be used to correct the improper use of hospitals and clinics by those patients who are able to use regular private practice. Our committee will ultimately report as to whether some such action seems advisable to them, and at that time the Association must debate the question and make a decision. At

present it is well to start thinking about it, and I want to spend the rest of my time in presenting to you a possible plan.

This plan would involve establishing a bureau, probably in this Library. Patients could be referred to this bureau by their physician, and here could be determined their ability to pay. Bills could be sent to this bureau and, if they exceeded the amount that the patient could pay, our own secretary would have the power to reduce the total amount. Then he could collect this amount in weekly instalments, spread over one year.

The bureau might be constituted somewhat as follows: A committee of this association would act as board of directors. The chief executive would be a secretary, employed on a full time basis, if possible a physician, but at any rate a first class man with some experience in public health and social work.

The doctor could refer the patient to the bureau. The bureau could find out about the patient and his family by talking to him and possibly checking his income through his employer and through any organization which knew anything about him. Just how much house visiting would have to be done by this bureau is not yet determined, but probably very little.

The patient would go to his own doctor. The only part that the bureau would play would be: 1. At the request of the doctor, the bureau would determine the patient's ability to pay; and 2. The bureau would collect this amount during the ensuing year.

The usefulness of such a plan if it could be organized successfully might also be summed up in two sentences. 1. It would enable the patient of small income to get complete care. 2. It would enable the physician to obtain the compensation for his services up to the limits of the patient's ability to pay.

This set-up could probably co-operate with the hospitals and help prevent the small percentage, although considerable amount, of clinic abuse which is taking place at present.

Of course this is the barest outline of the general principles of such a plan. It would need very careful studying. If adopted it would need to be administered very well or otherwise would create abominable confusion.

In the main it should be started on as simple and small a basis as possible. We should not try to correct and change everything, but merely to make an effort to systematize for a small group of patients the old practice of fitting the bill to the ability of the patient to pay.

The last section of this address consists in quotations from the pamphlet of the Bureau of Economics of the A.M.A., "Medical Service Plans," a special report as approved by the House of Delegates, American Medical Association, 1935. The quotations are sentences and paragraphs that seem to be pertinent to the subject, and I have tried to be fair and not use statements which when isolated give a different impression than when in their proper context.

"The size of the problem which a medical society intends to attack should be definitely determined. Critics of medical society plans, especially when they are also advocates of some wholesale panacea like compulsory sickness insurance, are inclined to deprecate plans which cover only a comparatively small portion of the community. It is much easier to experiment with a small plan and expand it to a comprehensive one than to start with a big scheme involving new and cumbersome administrative machinery."

"The scope of the plan should be definitely determined in the beginning. A primary division will be between the indigent and the low income classes. By low income is meant an annual income so low that payment made for medical service will reduce the amounts available for such necessities as food, housing and clothing below good health standards, which are usually placed somewhere between \$900 and \$1,500, varying according to local conditions."

"Proper adjustment of medical charges according to ability to pay depends on as exact knowledge as is possible of the income of those to be served."

"A classification of illness with reference to the economic burden is another necessary preliminary step. Illnesses may be divided into 'minor' and 'major' or 'catastrophic.' Except for the indigent, the provision for medical service in minor illnesses is seldom an important economic problem. Wholesale provision for medical service for such illnesses usually results in an increase in their number. On the other hand, when expenditures in a family whose income is already close to the 'comfort' or even the 'subsistence' level reaches \$50 or more,

such a family may be forced into an economic situation destructive of the health of the entire family."

"Analyses show that the class for which special provision is necessary is far smaller than most lay writers and the results of so-called 'surveys' indicate. Elimination of the care of minor illness leaves only from 10 to 15 per cent of the low income class whose medical expenses each year constitute a heavy burden or so-called catastrophe."

"The problem of many of the remainder can be solved as well as the general economic situation permits by an approximate adjustment of fees, in accordance with a full and fair investigation of resources and accompanied by arrangements for instalment payments."

"When any income exists the care for minor illnesses usually requires little more than a possible adjustment of charges."

"The experience of the Wayne County, Mich. (Detroit) Medical Society has shown that the average charge to the persons receiving complete medical service, including hospitalization for major illnesses, is less per family than the majority of proposals for sickness insurance would impose on all families sick or well."

"It is possible still further to lighten the burden by the method through which the same classes are accustomed to purchase articles not ordinarily incurred in their family budgets, that is, by the instalment plan."

"Because collection does play so important a part in the economic side of the payment for medical service, many county medical societies have found it practicable to entrust the function of collection to a central office controlled by the county medical society. If this is done it is possible to co-ordinate and simplify all steps of the process."

"It will sometimes be impossible in the beginning of any plan to provide for the payment of the equivalent of ordinary full fees to all the physicians engaged, even if allowance is made for a sliding scale. The amount of gratuitous service which is to be given should be clearly understood, and it should be recognized that a certain amount of such service is involved in any form of medical service. At the same time it is a fact that a high grade of medical service cannot be provided permanently unless the payment for such service is sufficient to enable physicians to maintain that standard

by further education and a corresponding standard of living."

"No very elaborate or expensive administrative machinery is necessary, at least in the beginning of such program as is here suggested. A central administrative office will be required to which all calls for medical service should come or be reported. This office should then refer these to the investigating agency for an economic diagnosis and to some physician for a medical diagnosis and treatment or reference, if needed, to the proper institution. The introduction of such simple methods by county medical societies has, in some localities, either met many of the difficulties that previously existed in furnishing medical service to those needing it and who were hitherto unable to obtain it, or has opened the road to other equally short and simple steps toward progress in handling other difficulties."

"After such individual economic and medical diagnoses have been made it is possible to fix a fee and determine methods of payment which will meet the situation as well as the conflicting elements of income and need will permit. That is all and indeed far more than can be said for most wholesale schemes of reorganization of medical service."

This is the end of the quotations.

As you know, the spokesmen of the A.M.A. are insistent that no plan should be adopted hurriedly and that the local medical association should, before any such action, be sure that there is need for such a plan.

In conclusion I repeat that my object in discussing the situation and a possible plan is not to urge any action but to emphasize the importance of informing ourselves on this subject in order to be able to take intelligent action later when the committee report is made.

#### REFERENCES.

1. Publication Number 2. Committee on the Cost of Medical Care. Alden B. Mills.
2. Chapin, C. V. *Am. Jour. Pub. Health.* 14:647; Aug. 1924.
3. Final Report of the Committee on the Cost of Medical Care.
4. Taken from Final Report of the Committee on the Cost of Medical Care, p. 7.
5. Publication No. 25. Committee on the Cost of Medical Care. Louis S. Reed.



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## EDITORIALS

### PRIVATE PRACTICE VS. SOCIALIZATION

Even the most enthusiastic protagonist of socialistic reform will be loath to advocate the establishment of State medicine as the initial step in a reorganization of society if he has clearly in mind certain facts pertaining to the present day practice of medicine in America. In the first place the profit motive, the elimination of which from economic life is a main objective of socialism, is both

by tradition and usage definitely subordinated in the life of the rank and file of the profession as it is in no other group of independent individuals. In the second place the institution of the private practice of medicine as at present carried on, in spite of many defects which must and will be remedied and which are being freely emphasized by a host of critics, is rendering at the present time an increasingly efficient service. In the third place successful socialization of the profession with the preservation of the essential relationship between doctor and patient, represents an ideal which at present appears impossible of achievement. Critics who, like Harold Laski in his recent article "The

Decline of the Professions" (Harpers, November) maintain that the struggle for existence on the part of the practitioner destroys his ability to render efficient, up to date service, forget that under a system of State medicine in which financial "security" would be guaranteed to the doctor there would be taken away from him that stimulus to excel, to "make good" in the eyes of his patients, which causes him to do his level best. Such critics do not sense the disruptive effects of bureaucratic control with all its opportunities for political machinations and injustice. Even in that preliminary move towards socialization which it must be admitted is a form of State medicine, the British Panel System, there is already as Johnson has pointed out (A.M.A. Bulletin October 1935) a definite restriction in the choice of physicians by the patients and a definite belief on the part of such patients that "panel treatment is not as good as private." As far as the status of the panel doctor is concerned Johnson quotes the Lord Chief Justice as follows: "The treatment of the panel doctors under the National Insurance Acts is *pure despotism*." What such a system could do in Rhode Island, we who have first hand knowledge of our local conditions can hardly contemplate without a shudder.

Let us admit, then, for sake of argument that a measure of socialization of our general economic life would be a step in advance. Let us further admit that many improvements in the practice of medicine as at present organized are needed. Never-the-less, in view of the high character and achievements of the modern independent practitioner and of his traditional subordination of the profit motive in his work, and with a knowledge of the obvious dangers in all attempts at bureaucratic control, let us determine to resist any attempts to begin socialistic reform in the field where the need for it is obviously the least, the field of medical practice.

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### MERCY KILLING

Recent newspaper propaganda tending to inflame certain hysterical groups among the public in favor of legalizing Medical execution of patients deemed to be suffering from an incurable condition, is considerably out of line with the Principles of Medical Ethics as well as Individual Rights to "Life Liberty and the pursuit of Happiness."

It is true that we as Physicians as well as Individuals have come into close Medical and personal contacts with patients who not only are suffering acutely to no purpose and for whose life little hope remains. But it does not logically follow that we have a God-given right to deprive that patient of his life deliberately,—a process which the courts might very properly consider predetermined, planned, first degree murder.

It is also true that when Death finally comes to many aged and incurably afflicted patients, it comes in the garb of an Angel of relief, rather than a "Grim Reaper",—a final Benediction of Peace to one who has lived and worked long and hard, which is certainly a much desired reward, although permanent.

Fortunately we have the methods and drugs for giving peace, or relieving suffering and allaying pain, both physical and mental, which would seem fully adequate in every case, without adding the permanence of Death, which nature so generously provides at the proper time. Any change of criteria in that respect is fraught with the great danger of error, abuse, and in rare cases even of deliberate crime.

The Physician or individual who sponsors any such program of so-called "Mercy Killing" has a weak, warped sense of sympathy and is a most unsuitable person to make the decision which sentences a patient to death. Similarly, the patient, worn by protracted illness or suffering who begs for death, is temporarily, at least incapable of making so portentous a decision and should be ignored in that idea.

It is a matter of gratification that no Rhode Island doctor has demonstrated such a modernistic conception of moral ethics, or is likely to do so.

Let us take heed and "Hold fast to that which is good."

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### BRIGHT'S DISEASE

What a temptation—to rationalize a diagnosis of Bright's disease when treating a patient whose urine shows albumin and casts, but whose condition seems obscure. If we remember that in almost all severe illnesses the urine shows albumin and casts, we are cautious and do not speak too fast.

Coronary thrombosis, for instance, may be accompanied by cardiac decompensation, and if it is, the urine shows casts. If the patient is put on a strict diet he worries unnecessarily.

## THE JOURNAL'S COLUMN

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To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

### AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

"Letters to the Editor" are considered to be the personal expression of the writer's opinion upon the subject of which he writes.

The RHODE ISLAND MEDICAL JOURNAL disclaims any responsibility for these opinions and is not to be held accountable for any sentiment therein expressed or implied.

If Bright's disease is included in the family history, if statistics are clouded once more, it is because the urinalysis tripped us up.

"Bright's disease" may have been coronary thrombosis, carcinoma of the pancreas, cancer of the lung, syphilis or one of many other specific diseases. We may sign a death certificate nephritis or carcinoma. We may not be convinced, but guess it is one of several diseases we have thought of. We may be concerned about the relatives of the departed, they will feel better if we commit ourselves than if we admit we have not been able to determine the cause of death. We may say to ourselves, "medicine is not an exact science, even if it were, there would be a co-efficient of errors." If Bright's disease is worked into a family history where it does not belong, it is regrettable. We

depend upon our statistics and family histories to such an extent that an erroneous diagnosis on a death certificate is to be taken as seriously as if the patient were alive and his chances of recovery involved.

If we must admit we have come up with our limitations and do not know what killed the patient, we are not cheating science. We are, if we yield to the temptation of rationalizing, too broad a guess to comfort despondent relatives. The mention of a specific disease is a relief; it means, to most laymen, that the patient was doomed. Let us be human, but not sentimental—think of statistics and family history rather than expediency and good will. If we are baffled by an obscure case, a consultation will often help. If we are called at the bedside of a dying man and have no chance to ascertain the indirect cause of collapse, we may make a diagnosis, but is it correct?

### A CASE OF UREMIA (WITH PRESENTATION OF SPECIMENS—POLYCYSTIC KIDNEYS)\*

By KATHLEEN M. BARR, M.D.

105 WATERMAN STREET, PROVIDENCE, R. I.

When P. Z. W., a thirty-seven year old, white, American, male, contractor was admitted to the Memorial Hospital on March the seventh, nineteen thirty-five, with a diagnosis of Uremia, clinical signs and symptoms substantiated this, but it was not until he reached the autopsy room that the true cause of the uremia was revealed.

On admission he complained of blurring of vision, shortness of breath, dizziness, and edema of the ankles and scrotum. The dizziness and blurring of vision caused him to seek an eye examination. The ophthalmologist referred him for medical treatment. This was three weeks previous to admission. Ten days later, the edema appeared, and when this became much worse, the day previous, hospitalization was advised.

In his past history he recalled mumps, measles, chicken pox and whooping cough in childhood. Influenza and pneumonia in 1919. There was no history of venereal disease. When he had been in the hospital a week, he recalled having been treated for "kidney trouble" throughout the summer and fall of 1934.

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\*Read at the meeting of the Rhode Island Medical Society, September 1935.



In the family history there was found nothing relevant. His habits were very good. No alcohol used and only one-half package of cigarettes smoked daily.

At no time previous to the onset of his present illness did he complain of shortness of breath or any urinary symptoms. His appetite was good. He was beginning to notice some nervousness and felt that he was suffering from a heart condition.

Physical examination revealed a very well developed and well nourished white male, lying apparently comfortably in bed, seemingly mildly lethargic, and complaining of dizziness. There was puffiness of his eyelids. Pupils were equal but reacted sluggishly. His nose presented no pathology. His teeth were poor. Tongue heavily coated and pharynx injected. He was well developed as to chest. Resonance and breath sounds were diminished but no râles were heard. The heart was enlarged in all diameters; sounds were only fair in quality but the rate was regular, about 88. A 2 was accentuated. Blood pressure 196/130. The abdomen was pendulous, distended and edematous. The liver was felt three fingersbreadth below the costal margin. No tenderness could be elicited, nor could any masses be felt. The genitalia were edematous. Knee jerks were inactive.

The laboratory findings were as follows:

Urinalyses: The color was at all times pale yellow, varying in reaction, with a specific gravity ranging from 1.008 to 1.020. At all times a trace of albumin was noted. There were never any casts. Occasionally there were found red blood cells, bacteria, leucocytes and epithelial cells.

Blood Chemistries:

	Adm.	3/12	3/15
Urea Nitrogen .....	44.82	77.05	83.13
Creatinine .....	6.5	6.8	8.8
Sugar .....	123.	129.	134.

Complete Blood: Hgbn. 86%, R.B.C. 5,010,000, W.B.C. 7200, 65% Polys., 31% Lympos., 2 Large Monos., 2 Transitionals.

Sedimentation Time: Presented a fast normal curve.

Wasserman and Hinton: Negative.

Kidney Function: Zero.

Electrocardiograph Readings (2): "Myocardial damage and left ventricular preponderance with probable involvement of coronaries."

Clinical Diagnosis: 1. Hypertension.  
2. Uremia.  
3. Nephritis.

The patient's progress: His temperature remained normal at all times with a pulse ranging from 80-90 and respirations 20. His blood pressure ranged from 196/130 to 150/96, but remained at about 180 systolic most of the time. His weight dropped from 179 lbs. to 153 lbs. in 12 days. His output of urine, measured daily, exceeded his intake of fluid at all times except on one occasion when the intake was 61 oz. and the output 51 oz.

The Treatment of the Case: On admission the patient was given 2 oz. of Magnesium Sulphate immediately and one dram of Haimased every four hours. He was put on a low protein, salt free diet with restricted fluids. A 2 cc. ampule of Salyrgan was given intramuscularly that evening. On the second day, he was greatly improved and continued to do well for one week. He then became restless and cerebral irritation was evident. A venesection with removal of 500 cc. of blood was done. His blood pressure remained up. Daily colonic irrigations were started together with administration of 250 cc. of a 10% glucose solution intravenously. Improvement was noted but lasted for only two days when he became irrational again, and jaundice appeared. Hot wet packs were started resulting in slight improvement followed by relapse with marked drowsiness. As the hot packs were not inducing sweating, Pilocarpine, gr. 1/6 subcutaneously was given. The stupor was superseded by cerebral irritation with delirium and its attendant physical activities, so two capsules of Nembutal were given. The patient slept for five hours and was slightly improved on awakening. Daily treatment, as above, was continued but the patient became progressively worse and died on March 23rd.

Autopsy Findings: (For economy of time I shall note only the pathological findings.) The pupils were unequal and dilated. Urea crystals were found on the skin surface of the face. The heart was markedly enlarged, weighing 2 pounds and with a ventricular wall one inch in thickness. The right ventricle was flabby, the papillary muscles hypertrophied and the chordae tendinae contracted. The mitral valve was roughened and there were definite plaques on the aortic arch. The Lungs: The left lung showed evidence of passive congestion. The right presented adhesions posteriorly and at the base with some scarring at the apex. The liver was large and firm with pressure scarring over the right lobe. The Kidneys: The right kidney was markedly

polycystic, measuring 10 x 5 x 6 inches and weighing 5 lbs. It was saved intact for the laboratory. The left kidney was slightly larger, also markedly polycystic, weighing 6½ pounds. On section, it showed a dilated pelvis, numerous cysts varying in size from a pea to an egg and filled with a brownish fluid. Several large perirenal lymph nodes varying in size were found on both sides. The spleen was firm, showing passive congestion and scarring at upper pole. The urinary bladder was moderately distended. The appendix was 8 cm. long.

#### Anatomical Diagnosis:

1. Bilateral Polycystic Kidneys.
2. Myocarditis.

In reviewing the recent literature on Polycystic Kidneys, I find that all of the writers have agreed that while the condition is not common neither is it rare, many cases being accidentally discovered either at autopsy or at operation for other suspected kidney conditions. Oppenheimer<sup>1</sup> in a very comprehensive article on Polycystic Diseases of the Kidney in the *Annals of Surgery*, 1934, states that in his series of 60 proved cases, all occurred in 220,000 admissions, and in 6000 autopsies, 14 cases were encountered. In one hospital, 13 cases were found in 2060 autopsies, and in the collected statistics of 23,900 autopsies, 67 bilateral polycystic kidney cases were found. Many of the writers vary in theory of the Pathogenesis of this condition. Hinman<sup>2</sup> in the *Principles and Practice of Urology* divides cystic disease of the kidney into Simple and Polycystic, the latter being congenital and of uncertain pathogenesis. He outlines the various theories of the latter as follows:

- (a) Virchow's theory that they are a form of retention cyst by developmental error.
- (b) Bigidi and Severi's (1880) theory that they are neoplastic-like cystadenoma.
- (c) Shottcock's, that they are due to the persistence of mesonephric tubules with cystic formation.
- (d) Huber's, that they are due to defective union of ureteral and metanephrogenic fundaments during development.
- (e) Kampmeier's,<sup>3</sup> that they are the persistence of early generations of uriniferous tubules. This theory is outlined in detail by McKenna & Kampmeier<sup>3</sup> in the *Journal of Urology* 1934 (July) and in explanation they have divided the kidney development into devel-

opmental zones of generations of uriniferous tubules. They also reported a case at the same time which I shall mention later.

And lastly that:

- (f) They are due to mal-development (arrested development) of glomerulus and Bowman's capsules.

Hinman<sup>2</sup> gives the pathology as: "Cysts varying in size from minute vesicles to good sized cysts several centimeters in diameter, scattered throughout the body of the kidney tissue but not communicating with the pelvis, although an occasional one ruptures into the pelvis. The contents of the cysts varies from clear fluid to a turbid viscosity and have been found to contain uric acid, hippuric acid, calcium oxalate, cystin, leucin, tyrosin, blood and cholesterol. The renal substance may be entirely replaced by cysts, the walls of which consist of a framework of fibrous tissue covered by a single layer of cuboidal epithelium which may be thrown into folds simulating papillomata. When renal tissue persists, it lies between cysts and presents progressive changes of atrophy from pressure, and interstitial fibrosis. There may be arteries of varying size lining the cyst walls and hemorrhages accompanied by attacks of pain attend their rupture."

All of the writers bring out that Polycystic kidneys occur at two periods of life—infancy and adult life. All have found that there is a strong hereditary tendency through either sex. In line with this, Dr. Chilton Thorington<sup>4</sup> of Montgomery, Alabama, reported 5 cases, all of the same parentage, 4 males and 1 female, who died between the ages of 30 and 50.

Infants die within a short time of birth.

Adults present chief symptoms varying widely, the simplest being a tumor plus renal insufficiency. Progress may be slow and many persons live their allotted time gradually showing symptoms of chronic nephritis. Hematuria intermittent and of long duration may be the initial symptom. Cabot<sup>5</sup> reports a case of this type in the *New England Journal of Medicine* for the week of December 20, 1934, when he presented a case of a 53 year old male complaining of Hematuria with a blood pressure of 240/110 and a urinalysis presenting a large trace of albumin and a Sp. Gr. of 1.012. The definite diagnosis of Polycystic Kidney in this case

(considered in differential) was made when after a complete work-up, the patient was operated upon to stop hemorrhage. Dr. Mallory in the pathological discussion of this case mentions that "Polycystic kidneys which are by no means rare are still seldom correctly diagnosed in life."

In Oppenheimer's<sup>1</sup> series of 60 cases, 59 were adults, one was an infant prematurely born. 37 of the 59 were males, 22 females. 26 of these known cases were dead at the time he published his article. In his table of age incidence none were found up to 20 years of age, two from 20-29, fourteen from 30-39, seventeen from 40-49, eighteen from 50-59 and eight from 60-69 years of age. He feels that the tremendous margin of safety present in the kidneys explains the fact that cases remain symptomless during the first two decades although 29 other cases have been reported by various writers occurring between the ages of 2 and 20. In grouping his patients as to clinical picture on admission (modes of onset or discovery):

Six were accidentally discovered at postmortem examination or operation on the finding of a symptomless mass in the abdomen.

Thirteen cases presented the signs and symptoms of hypertensive cardio-renal disease, and

Fifteen, the frank symptoms and signs of Polycystic kidney as hematuria, loin pain, bilateral loin masses, arterial hypertension and evidences of renal insufficiency.

The others ranged from signs pointing to renal neoplasm, infected hydronephrosis, pyelonephritis; perinephric abscess or renal calculi. As to associated conditions he found enlargement of the heart in 30% of the cases and hypertension with increase in the blood urea in the majority. The hypertensive cases were associated with poor renal function in 20 out of 28 cases.

So, actually the diagnosis of these cases is not easy or simple, always. Hinman<sup>2</sup> states that in the presence of a tumor (bilateral) plus renal insufficiency a clinical diagnosis is possible but in most cases is not made. Ritchie in 88 cases found clinically palpable bilateral tumors in only eight.

For diagnosis, plain X-rays may show renal enlargements that were not palpable, but pyelography is most informative although defects may simulate other tumors.

Conservative treatment as in chronic nephritis is indicated although surgery must be resorted to in cases of continued hemorrhage or severe distress.

#### REFERENCES

1. Gordon David Oppenheimer, M.D., New York, N. Y. *Annals of Surgery* 1934, "Polycystic Disease of the Kidney."
2. Hinman: *Principles and Practice of Urology*.
3. Charles Morgan McKenna and Otto F. Kampmeier: "A Consideration of the Development of Polysystic Kidney." *Journal of Urology*, July 1934.
4. Chilton Thorington, M.D., Montgomery, Ala., *Journal, M. A. Alabama*, December 1934.
5. Cabot: "Report of Clinical Pathological Conferences," M. G. H. *New England Medical Journal*, 211, December 20, 1934.

## SOCIETIES

### SPECIAL COUNCIL MEETING

A special meeting of the Council was held Jan. 2, 1936, at the Medical Library, and was called to order at 4:30 P. M. by the President, Dr. Roland Hammond.

Dr. J. E. Mowry, Treasurer, presented a letter of resignation from the Society of Dr. William Francis Duffy of Bristol. In view of Dr. Duffy having reached the age of 65 years, the motion was made and seconded that he be placed on the retired list, and it was so voted.

A letter from the Associated Medical and Social Workers requesting the use of the auditorium in February and March for six evening lectures was presented by Dr. Mowry, Treasurer, and inasmuch as a charge is to be made for this course of lectures, it was moved and seconded that the request be denied, and was so voted.

Dr. Kingman moved that the Publication Committee be authorized to furnish a budget for the RHODE ISLAND MEDICAL JOURNAL, and that the treasurer pay over to the Committee or its agent the funds requested by such budgets, and on being duly seconded, it was so voted.

It was moved that the Publication Committee be empowered to arrange for remuneration on a percentage basis of the Business Manager of the RHODE ISLAND MEDICAL JOURNAL for arranging for commercial exhibits for the R. I. Medical Society's annual meeting. On being duly seconded, it was so voted. Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., Secy.



REPORT OF THE MILK COMMISSION OF  
THE PROVIDENCE MEDICAL  
ASSOCIATION

REUBEN C. BATES, *Secretary*  
122 WATERMAN STREET, PROVIDENCE, R. I.

Certified milk in Providence during 1935 was obtained from the following farms: Cocumcussoc Farm, Wickford, R. I.; Cherry Hill Farm, North Beverly, Mass.; Fair Oaks Farm, Lincoln, R. I.; Hampshire Hills Farm, Wilton, N. H.; Walker-Gordon Farm, Charles River, Mass.

Through the courtesy and co-operation of the Boston Commission we have accepted their certification of two farms from Massachusetts and one from New Hampshire.

Bacteriological and chemical examinations of the milk are made in the laboratories of Brown University under the supervision of Professor Charles Stuart. Arrangements have been completed to have

the potency tests on vitamin-D milk performed in the laboratory of Professor Phillip Mitchell of Brown University.

During the past year pamphlets have been given many of the new mothers to acquaint them of the qualities of certified milk. Advertising material has been sent out to physicians and dentists and the yearly conference between the commission and pediatricists of this city was very successful.

The commission feels the time is ripe to recommend to our health officials the advisability of pasteurizing all milk sold in Providence except certified milk.

The personnel of the Commission includes Drs. Harold G. Calder, Chairman, Francis V. Corrigan, George W. Waterman, Robert H. Whitmarsh, Henry E. Utter, Harmon P. B. Jordan, Raymond L. Webster, Banice Feinberg and Reuben C. Bates, Secretary and Treasurer.

MONTHLY AVERAGES OF CERTIFIED MILK

	COCUMCUSSOC			CHERRY HILL (H. P. Hood)			FAIROAKS			HAMPSHIRE HILLS (Whiting's)			WALKER-GORDON		
	B.F.	T.S.	Bacteria per C.C.	B.F.	T.S.	Bacteria per C.C.	B.F.	T.S.	Bacteria per C.C.	B.F.	T.S.	Bacteria per C.C.	B.F.	T.S.	Bacteria per C.C.
January	4.58	13.57	2,500	4.23	13.33	1,280	4.55	14.01	1,107	4.14	13.03		4.09	12.87	80
February	4.37	13.31	3,837	4.12	13.13	2,772	4.31	13.62	2,200	4.10	12.95	13	4.15	12.94	1,701
March	4.50	13.44	3,512	4.28	13.32	3,150	4.45	13.52	450	4.10	12.98	2	4.00	12.70	3,215
April	4.31	13.25	3,411	4.00	12.93	5,737	4.72	14.02	572	4.22	13.15		3.95	12.68	2,062
May	4.36	13.21	4,383	4.06	12.91	2,260	4.71	14.00	3,405	4.09	12.83	4	4.00	12.63	1,511
June	4.32	13.05	3,412	4.02	12.89	2,762	4.92	14.05	1,464	4.15	13.05	5	4.00	11.53	4,500
July	4.30	13.03	7,464	4.00	12.90	3,350	4.30	13.26	2,525	4.10	12.86	13.3	4.00	12.57	4,566
August	4.25	13.05	14,255	4.16	13.08	2,900	4.27	13.23	9,572	4.00	12.49	7.7	4.00	12.40	7,375
September	4.14	14.97	8,400	4.12	13.08	2,860	4.18	13.19	1,422	4.06	12.89	4.4	4.02	12.77	5,110
October	4.32	13.29	4,905	4.06	12.95	2,240	4.38	13.31	1,885	4.12	12.48	6	4.02	12.87	4,325
November	4.42	13.45	4,193	4.17	13.12	2,750	4.50	13.57	1,187	3.95	12.82	4	4.05	12.90	4,587
December	4.40	13.45	5,835	4.30	13.17	916	4.90	13.86	1,572	4.00	12.77	1	4.00	12.99	4,412
Yearly Aver.	4.35	13.42	5,508	4.12	13.06	2,748	4.51	13.63	2,280	4.08	12.85	5.03*	4.02	12.65	3,620

\* Pasteurized

REPORT OF THE 1935 SESSION OF THE  
AMERICAN MEDICAL ASSOCIATION\*

The last annual session of the American Medical Association was unique in many respects. More members attended the meeting than any previous convention. The Canadian Medical Association met with the American Association for the first time. The number and variety of scientific papers was greater than ever before, and the scientific exhibit was the largest in the history of the Association.

Each year the scientific exhibits seem to increase in number, and interest. A definite effort was made

to make the exhibits educational and to correlate them with the scientific program. There were special booths where lectures were given and motion pictures shown on the prevention of asphyxial deaths, diabetes and the use of serums and vaccines. The exhibits also included demonstrations in dermatology, cancer, syphilitic heart disease, hemorrhage in obstetrics, abdominal surgical conditions and the physiological action of the ductless glands. All were exceptionally well displayed and ex-

\*Read before the meeting of the Rhode Island Medical Society, September 5th, 1935, held at the Pawtucket Memorial Hospital.

plained either by charts or lectures. The scientific exhibit alone more than justifies one's attendance.

The American Medical Association, in general, seems to have emerged from the depression in a remarkably satisfactory condition. Although 1,700 members were lost by death, the roster contains the names of 1,500 more members than one year ago. At present there are 99,536 members of the Association.

The financial condition, regarded as excellent last year, has also improved considerably. It is more than likely, however, the increased revenue received this year will diminish in succeeding years because of the lowered rates of interest on good securities.

The *Journal* continues to be the foremost medical publication in the world. Its departments reviewing medical literature of the various foreign countries give the American physician a world-wide grasp of medicine. The Therapy of the Cook County Hospital series is another valuable addition. The average number of copies printed each week was 85,711. It is impossible to mention the *Journal of the American Medical Association* without speaking of the *Quarterly Cumulative Index Medicus*. It is doubtful if any other publication renders a service of such magnitude to the medical profession. No other organization would even attempt such a tremendous proposition. Other special publications were continued and improved. It is gratifying to note the usual financial loss sustained by most of these publications was very greatly reduced this year. *Hygeia* incurred a loss of only \$2,000 as compared with a loss of some \$30,000 during the year of 1933. That is comparatively small when one considers the value of such a publication to the public.

The importance to the medical profession of the various councils and bureaus can best be judged by their increased activities.

The Council on Pharmacy and Chemistry has studied in an impartial manner the actions of various drugs and compounds and has informed the profession through the columns of the *Journal* of its findings. The information given affords the medical profession its greatest protection against confusing and unjustified claims of proprietary firms whose chief interest is financial gain. The work of the Council will be more valuable when members of the profession refuse to use therapeutic agents before they have been accepted by the Council on Pharmacy and Chemistry.

The Bureau of Medical Economics has been particularly helpful in collecting and disseminating information in its field. The depression furnished an inspiration for many schemes to alleviate human misery. Sickness insurance plans have been and continue to be the chief aim of many powerful philanthropic societies and non-medical individuals. In order to acquaint the medical profession and the public with the facts the Bureau of Medical Economics has undertaken extensive studies both in America and foreign countries and has published the results in the *Journal* and in the *Bulletin*. Many of these publications are now available in pamphlet form. It may be said that sickness insurance plans, for the most part, provide not for the indigent, but for those who can pay, and, further, place between the physician and the patient a non-medical third party who also must receive a remuneration. Such a plan can be satisfactory only to the third party. The public generally does not understand this phase of the plan. During the coming year the advisability of sickness insurance will be the subject of many high school and college debates. Many of you will be asked by debaters for information. This may be obtained from the bureau which has prepared pamphlets on the subject and will gladly forward them to you. Any scheme pertaining to the health of the public should rest in the hands of the medical profession rather than the laity, and should embody the principles of ethics adopted at the Cleveland session. The state and county societies likewise assume a responsibility in adopting plans for the care of the indigent and low income groups. It must always be remembered and emphasized that voluntary insurance schemes preceded compulsory insurance in those countries where the latter exists. Even where a definite need exists for a plan for the low income group, a carefully conceived plan may serve to inspire lay organizers with questionable motives to develop cheap imitations. There are many other reasons to cause a Medical Society to pause before entering upon any such scheme, chief of which is the actual necessity for any cooperative plan at all.

The Bureau of Legal Medicine has followed the activities of the National Congress and has noted the bills introduced in State Legislatures that pertain to medicine. On the whole there have been passed but few bills of interest to the profession.

The Bureau of Health and Public Instruction, through the personal appearance of its director, by

exhibits and pamphlets, and particularly by radio, has reached a far greater audience than ever before.

The House of Delegates elected the following officers for the ensuing year: President-Elect, Dr. J. Tate Mason of Seattle, Washington; Vice-President, Dr. Kenneth M. Lynch, Charleston, S. C.; Secretary, Dr. Olin West, Chicago, Illinois; Treasurer, Dr. Herman Kretschmer, Chicago, Ill.; Speaker of the House of Delegates, Dr. Nathan B. Van Etten, New York; Vice Speaker of the House of Delegates, Dr. H. H. Shoulders, Nashville, Tenn.; Trustee, Dr. Ralph A. Fenton, Portland, Oregon; Trustee, Dr. James R. Bloss, Huntington, West Virginia.

Immediately following the election of officers the House voted to hold the next annual Session in Kansas City, Mo., May 11 to 15, 1936.

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## OBITUARY

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FRANCIS J. HIGGINS, M.D.  
1894—1935

Dr. Francis J. Higgins died at his home, 216 Waterman Avenue, East Providence, on October 3, 1935, a few hours after he had suffered a cerebral hemorrhage. He was but 41 years old.

Dr. Higgins was born in Providence on August 9, 1894, the son of Michael J. and Mary A. (Horan) Higgins. He was educated in the public schools of Providence, received his pre-medical education at Brown University, and in 1921 was graduated from Tufts College Medical School.

Dr. Higgins served internships at the Metropolitan Hospital in New York City and at St. Francis Hospital in Hartford, Connecticut. He then established an office for the general practice of medicine in East Providence, which community and its environs he served faithfully until his untimely death. He was largely instrumental in the establishment of the "Well-Baby Clinic" of the East Providence District Nursing Association and was the medical director of this clinic since its origin eight years ago.

Dr. Higgins was a member of the Providence Medical Association, the Rhode Island Medical Society, and of the staffs of St. Joseph's Hospital and the Homeopathic Hospital. For several years

he served as an associate on the gynecologic service at St. Joseph's Hospital. He was also a member of the Stark-Parker Post of the American Legion, Riverside Council of the Knights of Columbus, and of the Metacomet Golf Club.

Dr. Higgins was one of the most skillful golfers among the medical profession, and was an ardent traveler, having made many trips around the world, through Europe, Africa, and South America. He never married.

Dr. Higgins was a genuine family physician, conscientious to a fault; a tireless worker, often at the expense of his vitality; a true friend to all his patients. His death is a real loss to the medical profession, to his family, to his patients, to his friends.

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Barbara T. Ring, M.D., announces Hosea Webster McAdoo, M.D., as Medical Director of the Ring Sanatorium and Hospital.

M.D., Tulane University, New Orleans, 1916-20. Interned, St. Louis, Southwestern Railroad Hospital, 1920-21. Resident Physician, Warren State Hospital, Pennsylvania, 1921-23. Instructor Neuro-Anatomy, University of California, 8 months, 1923-24. St. Elizabeth's Hospital, Washington, D. C., 4 months, 1923-24. Medical Officer (Psychiatry), U. S. Veterans Hospital 78, Little Rock, Ark., 1924-29. Assistant Professor of Pathology, Baylor University, Dallas, Tex., 1929-30. Clinical Director, Springfield State Hospital, Sykesville, Md., 1930-32. Superintendent, Springfield State Hospital, Sykesville, Md., 1932-35.

Arlington Heights, Mass., Oct. 24, 1935.



## COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

*Periarteritis Nodosa.* Middleton and McCarter, *Am. J. M. Sc.* 762: 291, suggest a biopsy of accessible nodules or voluntary muscle. They cite the tetrad of Meyer and Brinkman—chlorotic marasmus, polyneuritis and polymyositis, striking abdominal manifestations (cramps, vomiting, diarrhea, melena and perforation) and nephritis, as offering a logical foundation for the clinical diagnosis of the disease.

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*Here and There:* Simple test for early detection of cancer (Gruskin, Temple University) . . . Outfits furnished by boards of health for collecting serum from chancre to make early diagnosis of syphilis possible . . . Larodon for pain . . . Antitularemic serum . . . Intravenous medication for introducing fat substances into babies who cannot absorb fat . . . A new method of producing morphine and codeine without producing crude opium—less cost . . . Hemophilia treated by use of snake venom (MacFarlane) . . . Glucose dressings for severe burns (Belts) . . . Gold salts for arthritis (Forrestier) . . . An apparatus for measuring intensity of X-rays and radium after penetrating human body . . . Dioxyanthranol 1-8 as a substitute for chrysarobin . . . A new test for identification of pneumococci by Dr. Leifson, of Johns Hopkins University . . . D'Amour's serum for bites of black widow spider . . . Rich meat diet for epilepsy and migraine (Foldes) . . . Varicose ulcers: acetylbetamethylcholine chloride and mild electric currents (Wright & J. Kovacs) . . . New electrical method in gallbladder operations, removes most of danger and serious aftermath. No drains are used (Thorek) . . .

\* \* \*

*Benign Lesions of Eye, Ear, Nose and Throat* Allen Robinson, *Am. J. of Roent. and Radium Therapy*, 33: 801, 1935, discusses the use of radium for the following conditions: vernal catarrh, hemangioma, polypoid ethmoiditis, fibroma of the nasopharynx, rhinoscleroma, ozena, chronic tonsillitis and chronic lymphoid hyperplasia of the pharynx, tuberculous cervical adenitis, enlarged thymus and leucemia.

*Gumma of Bladder Simulating Cancer.* Probstner (*Ztsch. F. Urol.*, Leipzig, 29: 273, 1935). The author reports a case of a woman of 70 who entered the hospital with a suspicion of cancer of the bladder. She was thin and cachectic. A diagnosis of inoperable carcinoma of the bladder was made. Treatment symptomatic. A few days later she complained of sores of the back. Wassermann was strongly positive. After 7 weeks of antisyphilitic the patient was free from bladder symptoms. (It is always safer to do a routine Wassermann in old age. Some of these old people react very kindly to antisyphilitic treatment. Most of them deny ever having the disease.—M. W. T.)

\* \* \*

*Drugs and Other Methods of Treatment.* Foster Kennedy (*Bull. N. Y. Ac. of Med.*, 2: 511, 1935, second series) discusses drugs in neurologic conditions. Allergic treatment of migraine, ergotamine tartrate for the migranous seizure. Headaches: rheumatic yield to salicylates; septic teeth and tonsils as a cause of pain in back of neck and lower occiput; local skull pain after head injury from formation of cerebro-meningeal adhesions. Violent headache caused by pulpitis—equal to that of trigeminal neuralgia. Nocturnal syphilitic headaches; headaches from inadequate sleep and fatigue. Headaches of menses and uterine malpositions. Acetanilide is a poison and bromo-seltzer a menace. Aspirin, phenacetin and caffeine citrate are harmless to nearly everyone in ordinary dosage (5 grains of each for one dose—seldom used). Pyramidon must be used cautiously. Luminal helps the nervously strained; a simple alkaline effervescent is a good habit—exercise is better—and perhaps a tranquil mind is the best of all (and the hardest to achieve.—M. W. T.).

\* \* \*

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*The Diagnosis of Primary Carcinoma of the Lung.* Heacock and King, *Radiology*, 24: 452, 1935, states that while there is no pathognomonic roentgenologic appearance, there is a picture, which, when present on only one side, should always suggest a primary new growth to the radiologist. It should then be regarded as malignant until proven otherwise. Biopsy material removed by the surgeon or bronchoscopist today offers the most reliable method of making this differentiation.



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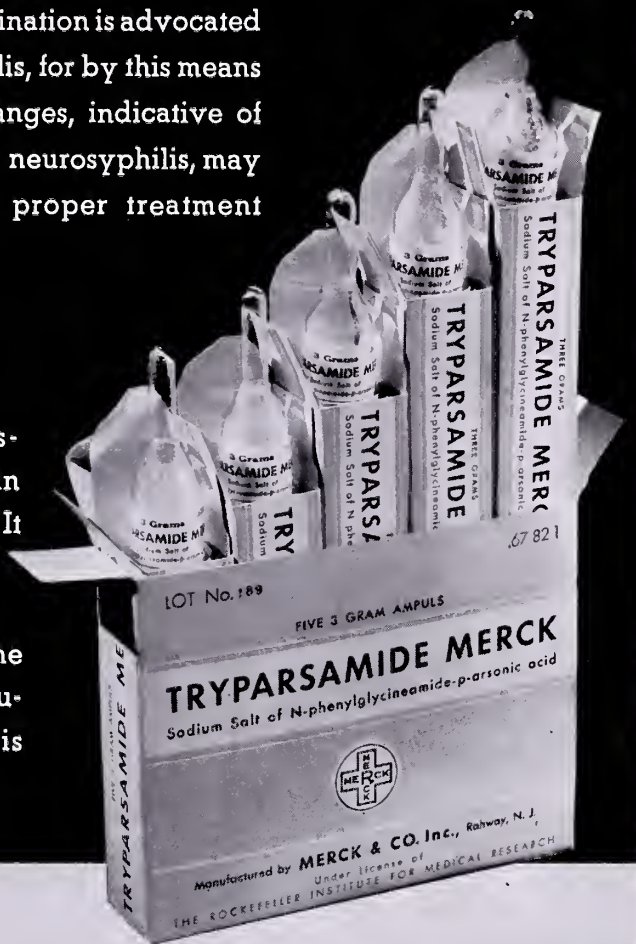
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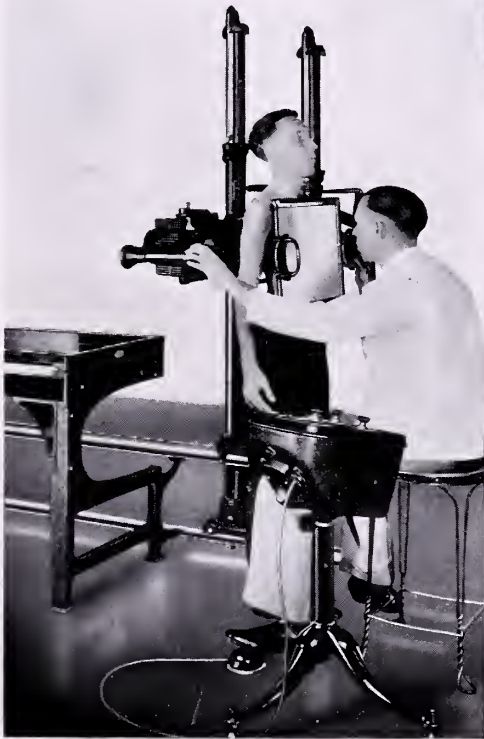


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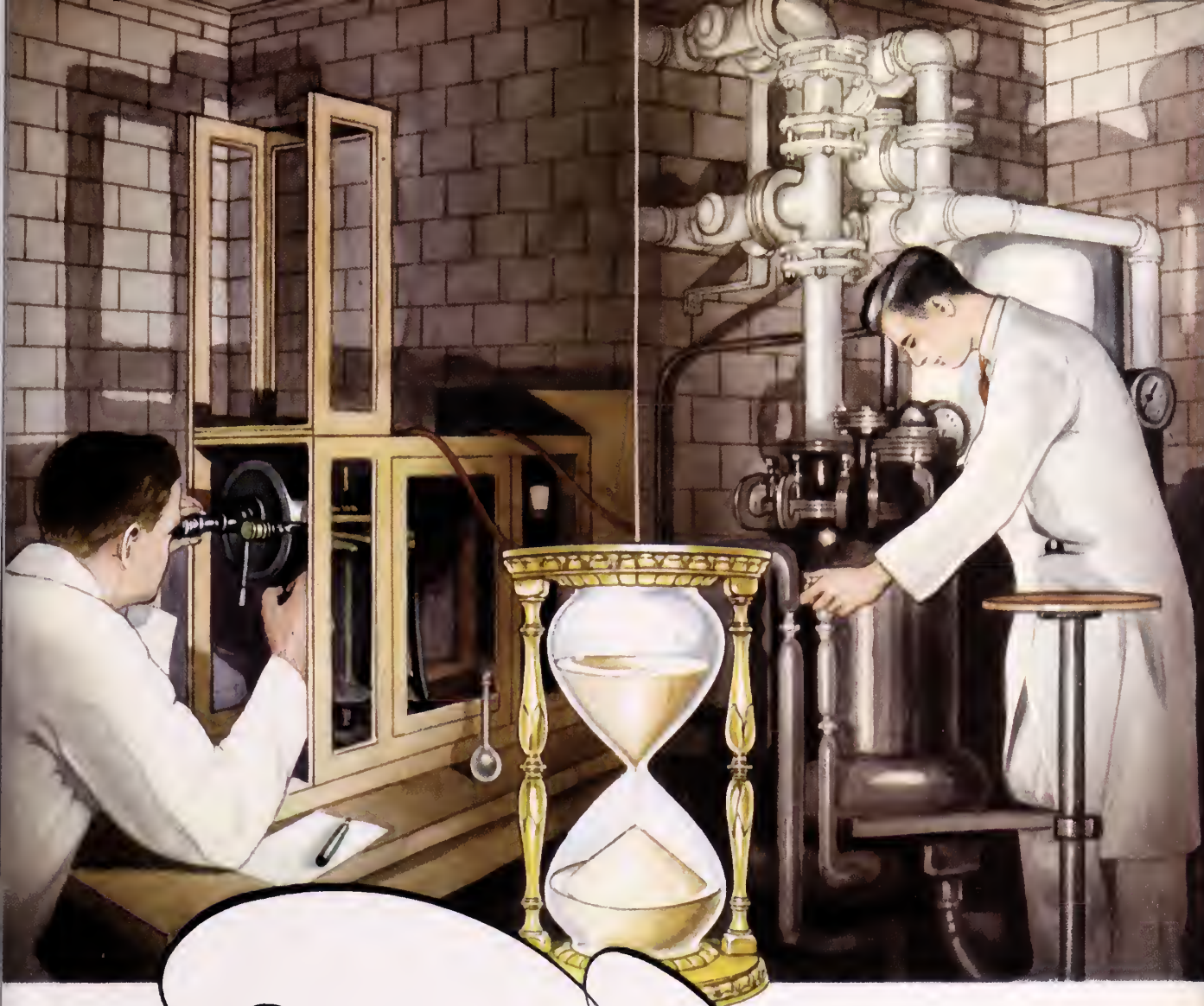
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## REFERENCES:

Kugelmass, Clinical Nutrition in Infancy and Childhood, (Lippincott).  
Marriott, Infant Nutrition, (Mosby).  
McLean & Fales, Scientific Feeding in Infancy, (Lea & Febiger).

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Foods packed in plain or unenameled cans are, therefore, exposed to iron and tin surfaces. In enameled cans, foods are mainly in contact with inert lacquers baked onto the tin plate at high temperatures. However, because of minute abrasions in the enamel covering, unavoidably introduced during fabrication of the can, foods in enameled cans may also have limited contacts with iron and tin surfaces.

It is common knowledge that canned foods may acquire small amounts of these metals from contact with their containers. The acquisition of iron and tin salts in this manner is an electrochemical phenomenon (1); and the amounts of these metallic salts thus acquired will depend, among other factors, upon the character of the food. In general, the acid foods tend to take up more of these

metals; especially when air is admitted after the can is opened. However, the quantities of tin or iron present in canned foods, as a result of reaction with the container, are small; the analytical chemist reports these amounts in "parts per million".

As far as iron is concerned, it is commonly accepted that the amounts of this element—recognized as essential in human nutrition—which may be present in canned foods, are innocuous.

As to the tin salts which may be present in canned foods, the Department of Agriculture has authorized the following statement as the result of its own investigation:

"Our own experimental work, involving the ingestion of far larger amounts of tin than any previously reported, and supported by the experimental evidence of other investigators, leads us to the conclusion that tin, in the amounts ordinarily found in canned foods and in the quantity which would be ingested in the ordinary individual diet, is for all practical purposes, eliminated and is not productive of harmful effects to the consumer of canned foods." (2)

It may therefore be stated that the amounts of tin and iron salts normally present in commercially canned foods are without significance as far as possible hazard to consumer health is concerned.

## AMERICAN CAN COMPANY

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(1) Kohman and Sanborn, *Ind. Eng. Chem.* 20, 76, 1373 (1928); *ibid.* 22, 615 (1930).

(2) "Food-Borne Infections and Intoxications", F. W. Tanner, *Twin City Pub. Co.*, Champaign, Ill. 1935, p. 90.

*This is the tenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



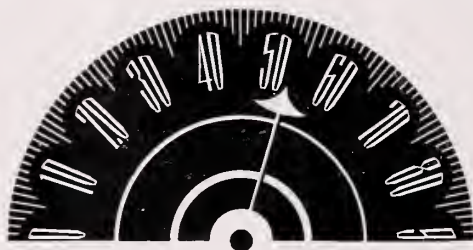
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# THE RHODE ISLAND MEDICAL JOURNAL

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## ORIGINAL ARTICLES

### A VISIT TO SOME EUROPEAN CANCER CLINICS\*

By DR. HERMAN C. PITTS  
68 BROWN ST., PROVIDENCE, R. I.

There is a great thrill in planning a trip to Europe, and the thrill becomes wonderfully intensified when, all the details attended to, you climb aboard your temporary home amid all the mad confusion of departure.

Just so Dr. Waterman and I found ourselves on the 19th of last June. For several months we had been laying plans for a visit to various European Cancer Clinics. Our own Cancer Clinic at the Rhode Island Hospital had gone serenely on year after year since 1921 without having had the benefit of the infusion of many new ideas, especially from abroad. Although our five year results were in the first rank, it seemed to us we might be missing a chance of improving unless we could see first hand what was going on overseas. I must confess that these hopes may have assumed a more rosy hue for me at least, from my desire to get away for a time from the routine of every day life. At any rate, there we were on the 19th of June—the huge Berengaria towering above us and the crowd of passengers and their friends making progress aboard almost impossible.

At last, however, we were settled and by the payment of a small additional fee settled in the lap of luxury—beds instead of berths, and a private bath. We travelled Tourist, so that our luxury was not as expensive as it might have been. The six days over were delightful lazy days—much fog—some rain—some blessed sun. There was no really rough weather and we were content. I suppose we lost golden opportunities for making friends,

but people meant very little in our lives just then. All we really wanted was a chance to sit still! I am glad we took that chance, too, for the four weeks ashore were strenuous enough. If you have ever travelled with a young and vigorous man who is forever ready to explore the last corner of any old castle or museum, you will understand what I mean. Of course our objective was Cancer Clinics, but the castles and museums just the same loomed large at the end of a day in some hospital.

In London our interest centered about St. Bartholomew's Hospital and two men there, Dr. Donaldson and Mr. Keynes. The old hospital itself is of tremendous interest. Its history dates back to 1123 when an old fellow named Rahere founded an almshouse on the present site. Even I felt a personal interest in the place when I found that someone named Pitts had donated 100 pounds towards its upkeep in 1790! The names of these benefactors are posted in the great hall, and the stairway up to the great hall is famous for two paintings by Hogarth—one the "Good Samaritan," and the other the "Pool of Bethesda." Like all London hospitals, St. Bart's is absolutely free. When patients leave, they are invited to contribute, but no sum is demanded for services rendered. All the work is carried on by voluntary subscription, too. What would happen to our big institutions here if we tried to run them on such a basis!

St. Bart's has always had a group of able men on its Staff. Conti, who produced the film showing growing cancer cells, is Pathologist there; Donaldson heads the Gynecological Service and is well known in cancer work in England. He is secretary to so many organizations and on so many committees that I should think he would have time for little else. We watched him treat a number of cancer of the cervix cases. He follows the so-called Heyman method which consists essentially in applying radium to the canal and against the cervix two or three times at intervals of a week or more. Our own method is to give one thorough treatment with radium in the canal and platinum needles in

\*Read before the Rhode Island Medical Society, December 5, 1935.

the substance of the cervix. The total dose with us is from 6,000 to 9,000 milligram hours—with Donaldson some 16,000 hours. Strangely enough the five year results are about the same, with the figures a little better by our method. Our method also has the advantage of subjecting the patient to only one treatment. In cancer of the body of the uterus, Donaldson does a complete hysterectomy, while we are more apt to treat with applications of radium to the cavity of the uterus, reserving hysterectomy if there happens to be a return of symptoms. As a matter of fact, we have a goodly number of cases among the less malignant that have gone five years and over without a return of symptoms. In passing, I might mention the fact that the European operating room is run more simply than ours. The preparation of the patient is less elaborate and the use of sterile goods much curtailed. Why Donaldson feels it necessary to dress himself and his assistants in knee-length rubber boots is still unexplained unless by the fact it is an old English custom.

Mr. Keynes is the man who has advocated the treatment of cancer of the breast with radium needles. These are long, some 3 inches, and have walls  $1\frac{1}{2}$  m.m. thick. The careless way he shoves these in above the clavicle and in the axilla along the big blood vessels makes one shudder. He assured us, though, he had never had any disasters!

We were impressed by two things in watching Mr. Keynes—first that he made so little of biopsy, and second that he has little by little introduced surgery as an adjunct to treatment. In regard to the first, he claims that a diagnosis is correct in over 90% of cases, so why worry about the small fraction of doubtful ones; and in regard to the second, we noticed a number of cases in his follow-up that had had simple mastectomy with radium needles inserted in the edges of the incision, the axilla, and above the clavicle at the time the operation was done.

At St. Bart's, Dr. Donaldson makes very little use of post-radium X-ray. We found in all the clinics a great fear of overtreating—of doing anything to injure the vitality of the tumor bed, so-called. We feel here that this is a very important point—for surely some of our saddest results have come from this very over-treating. The tumor has disappeared but the patient remains a miserable wreck of her former self.

At St. Bart's they are building a 1,000,000 volt X-ray machine for experimental purposes. Here again we wondered where the money came from to make possible such an expensive toy!

A great deal of the actual treating of cancer patients is done in a hospital 25 miles north of London. This is Mt. Vernon, beautifully situated on a hill in the lovely English country. It was originally intended for T. B. patients, so is built to catch a maximum of sun and air. We spent one morning there with Donaldson and were tremendously impressed by the whole atmosphere of the place. Patients treated there are sent back to St. Bart's for follow-up.

Experimental work in cancer and on the effect of radium and X-rays is done in Strangeways Laboratory in Cambridge. We spent an afternoon there with the Director, Miss Honor Fell, and her co-workers. The place is unpretentious in the extreme, but the work turned out is of the first order. It is the sort of place one should visit again and again to get the most out of it and our time, unfortunately, was limited.

In England, the British Empire Cancer Campaign has made the extended use of radium possible. A large fund was raised and employed in buying radium. This is under the control of a committee of the parent organization called the Research Council, which in turn allots the radium to various properly equipped hospitals and research laboratories without cost to them. In addition the organization carries on a constant educational program throughout England through local committees. Each local committee has a paid secretary who is in constant touch with the work going on all over England. In our own country the same idea is embodied in the work of the American Society for the Control of Cancer. But here, of course, with our vast expanse of territory and our different local conditions it is much harder to effect the same unity of purpose as in England.

Altogether we were much impressed with the work being done in England. We were profoundly impressed by the unfailing courtesy of the Englishman and his ready willingness to show us what he had to show. With this pleasant picture in the backs of our minds, we rather reluctantly boarded the steamer for a totally unknown Sweden and Denmark. As it turned out, there need have been no



reluctance, for the Swede and the Dane showed us the same unfailing courtesy as the Englishman. If anything they even outdid the latter in giving us a free run of everything they had to show.

Our first impressions of Sweden were forbidding in the extreme. Rocks piled on rocks on each side of the long, narrow channel reaching up to Gothenburg. For several miles there was no vegetation absolutely and then the city came into view with green fields and trees and attractive country places on the surrounding hills.

We realized very soon that in our travels we had left a land of individualism (England) for one in which individualism had become engulfed in a socialistic desire to do the greatest good to the greatest number. We soon saw that in Sweden there were none of the extremes of wealth and poverty as in England. Whereas there were no beggars—also there were no Rolls-Royces but mostly Fords, Chevrolets and Dodges. The crowds on the streets were clean, well dressed and healthy looking—none of the poor, miserable, ragged outcasts one sees in London.

The railroads are state owned. Our train across Sweden was excellent—the service courteous and the food good. We didn't like the Swedish beer but that was more a matter of individual taste than anything really wrong with the beer. We were much delighted to find the country we travelled through very similar to our own New England country. The houses were built differently—the hay was cured differently, but the maples and the spruce and fir, and above all, the stone fences were there.

Stockholm we found a lovely city—quiet and clean and with fascinating waterways projecting in the most unexpected way into the very heart of things. In the week we were there, we heard no motor horn. That was not due to lack of motors either. The streets were full of them darting here, there and everywhere, but they went with a minimum of noise.

There was only one difficulty and that is a serious one—the difficulty of language. I have always been given to suppose that every other Swede talks English. It isn't so. If it hadn't been for the handful of men at the Radium Hemmet who talked English, our visit would have been a sad failure.

Speaking of the Radium Hemmet brings to mind the distinct shock we felt when we first stood in

front of this world famous institution. Homely and primitive it looked standing high up on a shelf of the rocky eminence that rises to the west of the city. Two buildings in front and a third across the street in back—all painted a dingy yellow. The Hemmet is small. It houses only some 70 patients and of these 15 or 20 are private patients. The accommodations are of the simplest—much crowded. What we saw of the private rooms made us feel that the private patients were not much better off than those in the wards.

Once inside we realized why the Radium Hemmet had taken its place as a world authority in the treatment of cancer. The men in charge, Heyman, Berven, and their subordinates are full-time men employed by the state. They do nothing else but treat cancer. All their energies are centered on that one thing. Day after day they plan the attack. To us it seemed stultifying. We couldn't imagine men devoting their whole lives to so narrow an occupation. It has its compensations though, for when we were there the heads were all off on an enforced three months' vacation which the Government requires them to take every year.

As we gathered, Sweden is divided into three centers of cancer activity. All radium is owned by the Government and is divided among these three centers. Stockholm is the largest center and therefore controls the most radium—10 grms. There is a second center in Gothenburg and a third in the South. All cancer cases about Stockholm and north to the Arctic Ocean are sent to the Radium Hemmet for treatment. A number of the patients we saw came from within the Arctic Circle and had travelled two days or more in reaching Stockholm. Where a patient is unable to stand the expense, the Government pays rail fares and board while under treatment. Most of the work, of course, is outpatient work. The Hemmet is thronged continually with new patients, patients under treatment and return cases. The 10 grms. of radium is divided into 2 packs of 5 grms. and 3 grms. respectively and a multitude of small tubes for application to the uterus, lips, throat, tongue or skin. No surgery is done at the Radium Hemmet. This seemed to us a distinctly weak point. From our own experience we are definitely certain that surgery is often more beneficial than radiation and that ideal treatment includes a skillful blending of the two. In Stock-

holm all cases that may in the end be judged surgical must be sent to an entirely different hospital for their surgery. Consequently we found them relegating to surgery, cases that had been treated first by radium without success, whereas very likely surgery would have been the method of choice in the first place.

Their treatment of cancer of the cervix approximated that of Donaldson in London. 40 mgms. in a container having walls equal in screening to 3 m.m. of lead were placed in the uterine canal for 24 hours and 75 mgms. in a flat box with walls of the same screening were packed tight against the cervix for 20 hours. This treatment was repeated in detail in 3 weeks. The total dosage amounted to 4,920 mgm. hours—far short of our dosage and very far short of the dose Donaldson uses. This dose, however, is helped out by routine X-ray to the pelvis.

We watched Heyman's assistant treat numerous cases of cancer of the body of the uterus. The cervix was dilated fully by means of large Hegars dilators and then the cavity was packed tight with from 4 to 7 metal cylinders containing varying amounts of radium. These cylinders had the usual screening of the equivalent of 3 m.m. of lead. In all the dose given amounted to from 2,600 to 4,000 mgm. hours and was repeated in detail in three weeks. If bleeding continued or if the uterus failed to be reduced in size, the patient was transferred to another hospital and a hysterectomy done. We also found they were prone to do hysterectomy in cases of Ca of the cervix that were not freed from cancer by the radium and X-ray. This we have always believed to be a useless gesture.

Their treatment of Ca of the vulva is certainly unique. With metal electrodes they coagulated all the tissues of the vulva from the perineum to the top of the pubes, leaving a great sloughing area in the midst of which the urethra stands out with no support above, below or on the sides. Time seems to be of little value there, for it must take weeks for such a slough to heal. The results they claim are excellent—much better than by any other method they have tried.

In cancer of the lip and tongue they never operate and they never dissect necks. After the radium is applied locally, they use X-ray or radium packs on the neck. All cancers of the larynx and pharynx are treated by radium pack.

We watched them treat a cancer of the lower lip one day; a growth about 1 cm. across. Under novocaine anesthesia eight 10 mgm. platinum needles were inserted beneath the growth. The needles were large in diameter, but short—some  $\frac{1}{2}$  inch long. The needles were left only 4 hours, giving a total dose of 320 mgm. hours. A biopsy was taken after the needles were in place.

In cancer of the breast they still rely on surgery, but operation is preceded by intense X-ray. As soon as the operative wound is healed, a second round of X-ray is given and this is followed by another two months later and a third three months after that. Such a course is entirely contrary to what we think logical in this country.

The general results as far as we could judge from the follow-up cases, were most excellent. In fact we began to believe we were pikers in the treatment of cancer and instead of trying to treat such cases ourselves should send them all to Sweden! And then on our last day at the Radium Hemmet our spirits rose to find that even there they were obliged to face the same hopeless problems we face day after day, and are really as helpless as we are in dealing with many cases of cancer. It was when we were making general rounds that we found the wards full of a sad collection of advanced face and rectum, naso-pharynx, thyroid and skin cases—the poor unfortunates who had come limping back for a last hopeless effort!

We left Stockholm with real regret. Our stay had been both profitable and delightful and a great part of the profit had come from the cordial reception we received at the Radium Hemmet and the ready willingness with which every one of the men there showed us all they had to offer.

Copenhagen in its way was quite as charming as Stockholm and its people just as cordial. This was the more surprising too for we had no letters to anyone there. A telephone message to the Finsen Institute paved the way. There we were taken in charge by a Dr. Genner who very kindly showed us what there was to see of the light treatment as carried on. This Institute is really a very famous place and its founder, Dr. Niels Finsen, one of the great men of our profession. In 1893 this young man published his first treatise on the effects of sun light on the skin. His work aroused the interest of two prominent business men in Denmark. A few

years later through their support he was able to start the Institute in a very modest way. Dr. Finsen himself lived less than 10 years after the Institute was started. He died in 1904 but his work has gone on and expanded until now it takes large buildings to house it. The state recognizing the importance of the work, has stepped in with huge yearly subsidies so that it is now practically Government controlled. One of the buildings on the grounds of the Finsen Institute houses the Radium Foundation. This is the largest center in Denmark for cancer treatment. Its supply of radium—3 grms. is loaned by The Imperial Cancer Campaign Fund. Radon is collected from 1 grm. of this; the other 2 grms. are divided among numerous applicators.

The Finsen Institute proper is devoted almost entirely to the treatment of tuberculosis in various forms and the treatment of lupus vulgaris seems to engage a great deal of their time. Dr. Genner, our guide, took us into a large circular room where there were some dozen carbon arc lamps to supply the ultra violet light. The rays are water cooled and thrown through a blue screen to absorb the more irritating wave lengths. The patient lies comfortably on a couch beside the lamp and the end of the apparatus pressed against the part to be treated. Treatments are given two or three times a week for an hour or more and last for months. Absence of ultra violet light in that northern climate presumably accounts for so much lupus. Certainly we see very little of it here. Dr. Genner also showed us their method of treating glandular T. B. There in a large room; seated around a big spluttering arc lamp were a half dozen men and boys entirely naked. The sweat poured off them while several attendant women plied them with glasses of water. These patients also received two or three treatments a week for several weeks. Lack of time prevented our seeing the method of treatment in bone and joint tuberculosis.

The next morning we had an appointment at the Radium Foundation with a Dr. Nielson. We found him a very pleasant, rather distinguished looking young man. He was going over return cases when we entered. All of his cases are treated with X-ray by the so-called Coutard or fractional method. That

is, they are given small doses of X-ray twice daily for a period of a month or more. The treatments are given over two or more portals and may be 70 or more in number. The total dose will perhaps average 3000 r. units over each portal. We saw quite a variety of cases—a tongue—several cancers of the antrum, several of the naso-pharynx, one of the thyroid, one of the parotid, one of the larynx and two of the breast. The larynx case had improved very much but there was still a suspicious, very small nodule left that Nielsen said he would remove by hemilaryngectomy if it did not disappear. The two breasts looked pretty hopeless to us. Nielsen, however, thought they might be improved enough to have surgery done later. Nielsen told us that all superficial skin things were treated with platinum needles filled with Radon. Their X-ray plant was a model and it need well be where so many patients were treated so often. The three 180,000 volt machines were kept going constantly!

Later on in the morning we watched the Gynecologist treat carcinoma of the cervix. Their routine there is to put 70 millicuries of radon in a container with walls the equivalent of 3 m.m. of lead, in the cervical canal, with 100 millicuries in 2 containers with walls of the same screening packed against the cervix. This is left for 20 hours and the treatment is repeated in 10 days. No post-radium X-ray is given.

Altogether we were much interested in what we saw in Copenhagen but not convinced. We felt certain that the dose of radon given by the Gynecologist was inadequate, and we could not believe that the Coutard method of treatment with X-ray alone could entirely eradicate the majority of growths. Whereas in Stockholm we saw radium packs used constantly and with most excellent results, in Copenhagen they didn't use them for fear of injuring the surrounding healthy tissue.

As a summing up of our whole experience, I might write "not convinced." Not convinced that any method of treatment yet devised for cancer is entirely satisfactory. The multiplicity of method and uniformity of result goes to prove this. Until someone method gives results far in advance of all others we must keep trying.



# THE RHODE ISLAND MEDICAL JOURNAL

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## RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

ROLAND HAMMOND	<i>President</i>	Providence
JOHN E. DONLEY	<i>1st Vice-President</i>	Providence
WALTER C. ROCHELEAU	<i>2nd Vice-President</i>	Woonsocket
J. W. LEECH	<i>Secretary</i>	Providence
J. E. MOWRY	<i>Treasurer</i>	Providence

### DISTRICT SOCIETIES

#### KENT

Meets the second Thursday in each month

ROCCO ABBATE	<i>President</i>	Lakewood
GEORGE L. YOUNG	<i>Secretary</i>	East Greenwich

#### NEWPORT

Meets the second Thursday in each month

HORACE P. BECK	<i>President</i>	Newport
ALFRED M. TARTAGLINO	<i>Secretary</i>	Newport

**R. I. Ophthalmological and Otological Society**—2d Thursday—October, December, February, April and Annual at call of President.  
Dr. N. A. Bolotow, President; Dr. Gordon J. McCurdy, Secretary

**The R. I. Medico-Legal Society**—Last Thursday—January, April, June and October, Benjamin F. Tefft, M.D., President; Dr. Jacob S. Kelley, Secretary-Treasurer.

#### PAWTUCKET

Meets the third Thursday in each month excepting  
July and August

WALTER J. DUFRESNE	<i>President</i>	Pawtucket
THAD A. KROLICKI	<i>Secretary</i>	Pawtucket

#### PROVIDENCE

Meets the first Monday in each month excepting  
July, August and September

WILLIAM S. STREKER	<i>President</i>	Providence
HERMAN A. LAWSON	<i>Secretary</i>	Providence

#### WASHINGTON

Meets the second Wednesday in January, April,  
July and October

H. F. CRANDALL	<i>President</i>	Westerly
JOHN CHAMPLIN, JR.	<i>Secretary</i>	Westerly

#### WOONSOCKET

Meets the second Thursday in each month excepting  
July and August

HENRI GAUTHIER	<i>President</i>	Woonsocket
G. G. DUPRE	<i>Secretary</i>	Woonsocket

## EDITORIALS

### CHANGES IN MEDICAL PRACTICE

Physicians are practically unanimous in believing that compulsory health insurance or any form of government controlled socialized medical practice is to be avoided at all cost. Dr. Hammond and Dr. Wells have been explaining the situation to the local medical societies in the state and are thus doing a fine public service. Almost every physician who has made any study of the matter is convinced that any such system would be inefficient and ex-

pensive and would lead inevitably to intolerable bureaucracy with a lowering of the quality of medical care.

We also believe that lay writers have grossly exaggerated the need for such change in medical practice and that in our Rhode Island communities, at any rate, perhaps relatively few families are suffering from lack of medical care. The Providence Medical Association has a committee studying the situation in an endeavor to determine the need for increased medical service among the low income group.

If the medical men can themselves evolve a wise plan for improving the care of the poorer self sup-

porting families it will not only be a good thing in itself but will make it less likely that the state will be tempted to interfere. All this is a very strange field of action for us but we shall do well to consider it seriously.

Among the many plans no win operation throughout the country, the type that has been adopted at Washington, D. C., seems to be of advantage to both patients and physicians. Under this plan the people receive more complete care, fewer people are forced to seek charitable treatment at the clinics and the instalment collection service enables the patients to pay their bills more easily.

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### AN UNPREJUDICED AUTHORITY INVESTIGATES

Every physician is aware of the many studies, investigations and conferences upon the subject of the provision of adequate medical care for the people which have been and are being carried on in this country for the last five or six years. Most of these studies have approached the subject apparently with the pre-conceived idea that there is something fundamentally wrong with the practice of medicine and of the necessity of some pet plan for its reformation. In refreshing contrast to this attitude, the American Foundation Studies in Government approaches the study of the problem with an open mind, with no pet scheme to advocate—as, for instance, state medicine, group insurance, voluntary or compulsory health insurance—and, without the intermediary of a questionnaire which too often influences the opinions submitted, comes to physicians with the request that they whose experience in practice and whose judgment should be a guide in such studies, give the Foundation their own ideas on this vexed subject.

Many of the older practitioners have received this invitation from the Foundation, but some have been loathe to reply because, perhaps, of a feeling of suspicion of the motives and purposes of the Foundation. Suffice it to say that Dr. R. G. Leland, Chairman of the Bureau of Medical Economics of the American Medical Association, has investigated the American Foundation Studies in Government and reports that the Foundation is an earnest, unprejudiced fact-finding organization studying the question of adequate medical care for the American people with an open mind. It is, therefore, urged that every physician in Rhode Island who has

## THE JOURNAL'S COLUMN

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To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

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### AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

"Letters to the Editor" are considered to be the personal expression of the writer's opinion upon the subject of which he writes.

The RHODE ISLAND MEDICAL JOURNAL disclaims any responsibility for these opinions and is not to be held accountable for any sentiment therein expressed or implied.

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been solicited by the Foundation for his views and opinions reply to it freely and frankly. An opportunity is thus afforded the medical man who after all has a more intimate knowledge of the question than any other individual can have, to offer suggestions and plans based upon his actual experience in serving the sick.

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### BRONCHIECTASIS

By ESKE WINDSBERG, M.D.  
223 THAYER ST., PROVIDENCE, R. I.

In the RHODE ISLAND MEDICAL JOURNAL, xvii: 163 (Oct.) 1934, the writer of this communication had published an article entitled "Pneumonectomy: Successful Result in a Case of Bronchiectasis." The patient on whom the operation was performed

developed an acute respiratory infection and was referred by me to the Rhode Island Hospital, where she was admitted to the service of Dr. Charles Gormly. Less than 24 hours after admission she died on Jan. 8, 1936, three years and two months after her last operation. All efforts on the part of the House Staff to obtain a permit for a post-mortem examination were of no avail. The writer, however, succeeded in obtaining a signed permit following an interview with the parents at their home. The report, by Dr. B. Earl Clark, of the autopsy findings, which are of significance to the above mentioned publication, follows:

"When the chest plate is removed, the right pleural cavity is seen to be completely obliterated by many adhesions and masses of inflammatory tissue. The height of the diaphragm is mentioned above (Through the peritoneal cavity, on the right it is felt to be at the level of the third interspace. It seems to be pulled up by adhesions into the right chest cavity. On the left it is at the level of the fourth interspace) and the mediastinum is considerably pulled to the right so that the apex of the heart is about 1 cm. to the left of the midline and the right border of the heart only 1 cm. from the lateral thoracic wall.

"On exploration of the right pleural cavity, all adhesions are broken with great difficulty but there are no pockets of pus. A probe is passed into the axillary sinus mentioned above and there is demonstrated a chronically inflamed fistulous tract which extends into the upper main branch of the right bronchus and in turn communicates with the trachea. The trachea shows a marked deviation to the right and is attached to the right chest wall by several masses of inflammatory tissue. In the lower part of the right pleural cavity is a mass of collapsed lung tissue occupying a rather triangular space bounded mesially by the mediastinal tissues and laterally by the elevated diaphragm, to which tissues it is firmly adherent. This is connected with the trachea by a large bronchus, evidently the main lower branch of the right bronchus. This appears to be a considerable portion of the right lower lobe and measures 11x8x5 cm. In it are seen numerous bronchiectatic cavities between which is dense, red, airless fibrous tissue.

"The left pleural cavity contains numerous fibrinous adhesions. The left lung is somewhat larger than average. It weighs 900 grams, and is not collapsed. On palpation, the lung tissue is firm

and rubbery and does not crepitate. The pleural surface of the left lung is covered with fibrinous exudate. On section, there is seen to be a consolidation of the entire lung in both the upper and lower lobes.

"Diagnosis.—*Primary lesion*: Lobar pneumonia (left upper and lower lobes). *Secondary or Terminal Lesions*: Septic spleen. Fibrinous pleurisy, left. *Historical landmarks*: Pneumonectomy (right upper and middle lobes). Multiple bronchiectatic cavities (right lower lobe), Broncho fistula (right axilla)."

At the time of the last operation, Nov. 8, 1932, the entire sweep of parietal pleura was free of lung tissue which was mobilized down to a narrow pedicle at the hilus. It appeared, at the time, that the amputation stump presented a section through the main stem bronchus and the bronchus to the upper lobes prior to its division. In the light of the post-mortem findings the stump must have consisted of a section through the upper lobe bronchi just beyond the point of division. The previous cauterizations (three) had destroyed much of the diseased lung and had obscured some of the normal landmarks. The diseased, atelectatic, lower lobe was intimately fused to the posterior mediastinal structures from which it was difficult to distinguish it in situ even with the exposure possible on the autopsy table. In addition, this remnant of lung was hidden from view by the abnormally high diaphragm, to which it was also intimately fused. Thus, at the time of the hurried operation, it was not recognized and was inadvertently left behind.

Summary: 1. This case, then, is an instance of a bilobectomy of the right upper and middle lobes. 2. To Dr. Cameron Haight belongs the credit, which he had given to me, of having performed the second successful pneumonectomy on record. 3. Likewise, to Dr. Richard Overholt belongs the credit of having performed the first successful total right pneumonectomy on record.

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## THE PHYSICIAN IN NATIONAL DEFENSE INFORMATIVE ADDRESS

By G. M. EKWURZEL  
Colonel, M.C., Corps Area Surgeon, Army Base,  
BOSTON, MASS.

Believe it or not, the Constitution as interpreted by the courts, makes every male citizen between the ages of 18 and 45 a member of the unorganized



militia. If this were not so, the guarantee of "life, liberty and the pursuit of happiness" would be a farce. In a great national emergency all of us must help, and it behooves each of us to find his proper place in the complicated machinery of national defense *before* the emergency arises,—even before it appears upon the horizon. The more we desire peace, the more important this is. "The most effective way to preserve peace is to prepare against War." In joining the Army and Navy we identify ourselves with the most potent peace agencies in the country; with men who picture the terrible effects of war from *memory*, not from imagination.

The various elements of national defense open to physicians should be considered in logical order.

*First*, the Regular Army or Navy as a life career. The requirements of the Regular Army are: American citizenship, age between 23 and 32, compliance with physical standards, satisfactory evidence of good character, degree of M.D. from a Class "A" Medical School, and a diploma from National Board of Medical Examiners or passage of a satisfactory mental examination. The successive grades and pay under present laws in the Regular Army are:

Grade	Time in Grade	Pay Proper (Monthly)
1st Lieutenant	3 years	\$166.67
Captain	9 years	210.00—\$220.00
Major	8 years	300.00— 325.00
Lt. Colonel	6 years	379.17— 408.33
Colonel	Until age 64	466.67— 500.00

Brigadier Generals and Major Generals are selected from grade of Colonel and receive more pay and allowances.

In addition to the above pay, from \$18.00 to \$54.00 per month, depending upon the number of dependents, is paid in lieu of subsistence. Quarters are furnished in kind or are commuted into money allowances, in amounts varying from \$40.00 to \$120.00 a month, depending upon rank. No officer below the grade of Brigadier General receives total pay and allowances exceeding \$600.00 per month.

The Regular Army is an interesting life career, free from the irritating commercial details of civilian practice. It is hard to enter and will never make you rich, but if it appeals to you, write to the Corps Area Surgeon, Army Base, Boston, Mass.

*Second*: We should consider seeking a commission in the National Guard of our state. Information about it can be secured from the nearest State Armory or from the Adjutant General of the state.

*Finally*: If we do not feel that we can ally ourselves with either of these sections of the first line of defense, we should certainly endeavor to join the second line, namely the Army or Navy Reserve.

Qualifications (Army): American citizenship, age between 21 and 35 years, satisfactory physical examination, diploma from a Class "A" Medical School, a license to practice medicine in a state, territory or the District of Columbia or a diploma from the National Board of Medical Examiners, and actual engagement in the ethical practice of medicine. Reserve Officers receive no pay except when ordered to active duty. They are never ordered to active duty in time of peace without their consent. When on active duty they receive the same pay as regular officers of the same grade. Their promotion is more rapid than that of the regular army.

The reason for the existence of the reserve, which, by the way, was originated by the Medical Corps, is the need of a large body of officers assigned and partially trained in advance of a possible emergency. It will contribute enormously to the efficiency of mobilization and will materially lessen confusion and wire-pulling for desirable rank and assignment. One of the advantages to the individual officer is that he will receive promotion during peace time and will not have to enter the service in war time in the lowest grade. In return for these advantages, however, a reserve officer is expected to devote a small amount of time to his own military education. You are assured, however, that the training is too interesting to be burdensome, and cannot but be valuable to you in your civilian careers.

Newly appointed Reserve Lieutenants will very likely have an opportunity to be ordered to active duty with the Civilian Conservation Corps at a total salary approximating \$225.00 a month, if they so desire. Since the expenses are very low, this is an excellent opportunity to save up a little money to start practice.

The Reserve is rapidly undergoing a transformation. New life is being breathed into it. It is expected that in the near future the medical regiments, the medical detachments, and the hospitals of all sizes will have their commissioned personnel slates filled and that participation in their activities will be both pleasant and interesting instead of being merely a duty. For information write to the Corps Area Surgeon, Army Base, Boston, Mass.

These three components of national defense are now before you. You can do one of the following things:

Throw this article into the pile of things you have finished with. Put it aside for further consideration and probably forget it.

Act.

## SOCIETIES

### PROVIDENCE MEDICAL ASSOCIATION

The annual meeting of the Providence Medical Association was called to order by the President, Dr. William P. Buffum, Monday evening, January 6, 1936, at 8:45 P. M. The minutes of the previous meeting were read and approved. The annual reports of the Secretary, the Treasurer, the Standing Committee and the Reading Room Committee were read and approved.

The President's annual address was then delivered by Dr. Buffum. He gave a summary of facts regarding the annual incomes of families throughout the country and the amount of medical care received by the different groups. He then outlined a possible plan—an installment, post-payment plan—for use in this community in caring for the low-income group. This would be accomplished by establishing a bureau with authority to study the patient from a social service viewpoint, and with power to reduce the charge to the patient as might be necessary and advisable. All money would be collected through the bureau which would be in charge of a full time physician or social worker. No patients would be eligible for this service unless referred by a physician.

Dr. Buffum concluded with quotations from a publication by the Bureau of Economics of the A. M. A. in support of this type of plan in preference to any other, especially a pre-payment plan.

The election of officers for the ensuing year then took place and resulted as follows:

President, William S. Streker; Vice President, Peter Pineo Chase, Secretary, Herman A. Lawson, Treasurer, Charles F. Deacon.

Member of Standing Committee for five years—William P. Buffum.

Trustee of R. I. Medical Library for one year—Clinton S. Westcott.

Reading Room Committee—Elihu Wing, Guy Wells, Frank E. McEvoy.

Delegates to the House of Delegates of the R. I. Medical Society—J. G. Walsh, C. H. Woodmansee, R. H. Whitmarsh, V. J. Oddo, Wm. Hindle, C. W. Skelton, P. P. Chase, L. C. Happ, W. C. Gordon, W. M. Muncy, J. J. McCaffrey, C. B. Leech, A. J. Pedorella, J. M. Beardsley, C. R. Doten, H. J. Gallagher, N. A. Bolotow, Jos. Franklin, Chas. Bradley, W. S. Streker, H. A. Lawson, J. P. Eddy, 3rd; D. V. Troppoli, M. Adelman, F. Ronchese.

The following appointments to committees were announced by the President, William S. Streker.

Medical Milk Commission—Dr. William Hindle

to serve to 1938 replacing Dr. H. P. B. Jordan, resigned. Dr. R. A. Allen to serve to 1937 replacing Dr. Robert H. Whitmarsh, resigned. Drs. R. C. Bates and G. W. Waterman were reappointed for five years.

Committee on Ethics and Department—Drs. Charles Gormly and W. P. Davis reappointed for four years.

Collation Committee—Dr. Clarence Riley.

Obituary Committees—for Dr. F. P. Capron: Drs. Herman Pitts and E. B. Smith; for Dr. Rufus H. Carver: Drs. H. G. Partridge and P. Williams; for Dr. Horace Williams: Drs. H. E. Wellman and Albert Hayes.

The reports of following committees were then read and approved: Medical Care of Low Income Group; Unemployment Relief Committee; Committee for Hard-of-Hearing School Children; Medical Milk Commission; Blood Transfusion Bureau.

It was moved and voted that the President appoint an additional member to the Committee on Medical Care of the Low Income Group. The President appointed Dr. H. P. B. Jordan.

It was voted to appropriate the following sums of money for the ensuing year: \$450 to R. I. Medical Society for use of the building; \$250 for binding periodicals; \$250 for subscription to journals.

It was voted that the annual dues for the ensuing year be \$5.00.

Dr. Roland Hammond, President of the Rhode Island Medical Society, then addressed the meeting on "Social Medicine and the Doctor." Dr. Hammond first thanked the Providence Medical Association on behalf of the State Society for the improvements which had been made on the auditorium. In discussing social medicine, Dr. Hammond pointed out that most plans originate with social theorists and professional altruists; that most of them are based on fallacious principles and are unworthy. They are abuses of medical charity. He sounded a warning that we may expect further onslaught by the forces who want socialized medicine and pointed out that a well organized district society which will support the forces of organized medicine can do a good deal.

Dr. Hammond called attention to the fact that there are 125 members of the Providence Medical Association who are not members of the State Society and made a plea for increased membership. He pointed out that each member has a personal responsibility in the fight and that the best solution will be brought about by the education of the public and legislatures by the medical profession.

The meeting was then addressed by Dr. Guy Wells, delegate to the American Medical Association. Dr. Wells pointed out that the county medical society is the key-stone of the national society and that any power which the A. M. A. has originates in the county societies. Dr. Wells told of the splendid work performed by a committee of the A. M. A. in preventing legislation in Congress which would be harmful to the medical profession and the public alike. The slogan which appeals to the laity is "More Medical Care at Less Expense." Statistics show that in every country in the world which has tried state medicine the cost of medical care has increased.

Dr. Wells concluded by pointing out that there are 98,000 physicians in the A. M. A. and that they may wield a great influence. He warned that we should hear much about state medicine during the coming year and that we should prepare for an active campaign.

It was moved by Dr. Donnelly that the association rise to express its appreciation and gratitude to Dr. Peter Pineo Chase for fifteen years of devoted and efficient service as Secretary of the Providence Medical Association. It was so voted and Dr. Chase was given a rising vote of thanks.

The meeting adjourned at 10:25 P. M.

Respectfully submitted,

HERMAN A. LAWSON,  
*Secretary.*

#### THE RHODE ISLAND MEDICAL SOCIETY

The regular quarterly meeting of the Rhode Island Medical Society was held at the Medical Library on Thursday, Dec. 5, 1935, and was called to order by the President, Dr. Roland Hammond, at 4 P. M.

The minutes of the November meeting of the Council, and the November meeting of the House of Delegates were read by the Secretary and approved.

The President made the following appointments:

Delegates to the New England State Medical Societies' annual meetings: Maine—Dr. Samuel Adelson, Newport, R. I.; Dr. F. W. Dimmitt, Providence, R. I. New Hampshire—Dr. N. S. Garrison, Woonsocket, R. I.; Dr. H. E. Wellman, Providence, R. I. Vermont—Dr. J. W. Helfrich, Westerly, R. I.; Dr. R. R. Baldrige, Providence, R. I. Massachusetts—Dr. J. F. Kenney, Pawtucket, R. I.; Dr. J. E. Greenstein, Providence, R. I. Connecticut—Dr. C. O. Cooke, Providence, R. I.; Dr. E. S. Brackett, Providence, R. I.

Member at large of the Board of Trustees of the R. I. Medical Library Building: Dr. Horace P. Beck, Newport, R. I.

Anniversary Chairman: Dr. H. E. Harris, Providence, R. I.

The President announced the deaths of Dr. F. J. Higgins, died October 3rd; Dr. H. N. Williams, died November 20th, and referred the matter to the Committee on Necrology for the proper obituaries to be presented at the annual meeting of the Society.

The following program was presented:

1. "Purpose and Needs of the Medical Corps Reserve of the Army of the U. S.," G. M. Ekwurzel, Colonel, M. C., Corps Area Surgeon, Boston, Mass.

2. "Tumor of the Retina in Tuberos Sclerosis," Harry C. Messinger and B. Earle Clarke.

3. "Workmen's Compensation Laws from the Medical Point of View," L. Metcalfe Walling, Director of Labor of the State of Rhode Island.

Discussion by Doctors C. W. Skelton, J. F. Hawkins, H. A. Jones.

4. "A Visit to Some European Cancer Clinics," Herman C. Pitts. Discussion by Doctors G. W. Waterman, C. W. Skelton, P. P. Chase, H. C. Pitts.

5. "Present Day Status of Pulmonary Tuberculosis," U. E. Zambarano, followed by the film "Contacts." Discussion by Dr. Geo. Mathews.

After adjournment a collation was served.

Respectfully submitted,

J. W. LEECH, M.D.,  
*Secretary.*

#### BOOK REVIEW

A TEXTBOOK OF SURGERY, FOR STUDENTS AND PHYSICIANS, by W. Wayne Babcock, A.M., M.D., LL.D., F.A.C.S. Second Edition, Rewritten. Philadelphia, W. B. Saunders Company, 1935. 1312 pages with 1032 illustrations and 8 plates in color.

The second edition of Dr. Babcock's Textbook of Surgery is a single volume of 1312 pages and 1032 illustrations. There is much additional text and many new illustrations in this new edition. The book is attractively written; it is complete and covers the whole field of general surgery. The chapters on fractures, spinal anaesthesia, surgery of the chest, and the ductless glands are of unusual interest. This book will be of great value to the beginner in surgery as well as to the experienced surgeon and general practitioner.



## COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

*Protective Inoculation of Children of Pre-school Age.* Sauer's plan of immunization is to give pertussis immunizing vaccine during the second six months of life; four months later, inoculation against diphtheria; a few months later, when the schick test is negative, smallpox vaccination is given. Then during the following winter, or before the child enters kindergarten, he suggests that scarlet fever immunization be done. Dr. Gladys H. Dick thinks that scarlet fever immunizing toxin reactions are lessened if given before the patient has had diphtheria immunization. Hoyne and Baily, *J.A.M.A.*, 103:1051, 1934, states that the morbidity and mortality of scarlet fever can never be reduced to a satisfactory level without resorting to thorough and systematic methods of active immunization.

\* \* \*

*Diagnosis of Cutaneous Cancer.* MacKee and Cipollaro *Arch. of Phys., Ther., X-ray, Radium*, 16: 139, 1935, show that the only way to be absolutely certain of the diagnosis is to make a microscopical examination. It is advisable to perform a biopsy in as many cases as possible before selecting or instituting treatment and before adding the case to our statistical studies. The consensus opinion of cancer experts is that a biopsy is without danger, provided it is done with sharp instruments, without massage and without squeezing, but unless this is done carefully, properly, and thoroughly, the result is likely to be misleading.

\* \* \*

*Memoirs of a Small Town Surgeon* (Wheeler) and *Fifty Years a Surgeon* (Morris) are worth anyone's time.

\* \* \*

Carcinoma of the breast and prostate are responsible for from 50 to 70 per cent of all cancer metastatic to bone, according to Fort, *Radiology*, 24: 96, 1935. The pelvis and spine are the favorite locations for bone metastases of all kinds. Next to these, cancer prefers the ribs, femur and skull. (It should be remembered that X-rays must be taken with a fine focus tube in order to detect minute metastases in bone.—T.)

\* \* \*

Hospitals must change with the times. Nelson, *The Modern Hospital*, 2: 72, 1935. (Doctors, too.—T.)

Dinitrophenol is a treacherous drug.

\* \* \*

*Radiathermy in Medicine.* Kobak, *Arch. of Phys. Ther., X-ray and Rad.*, 1: 5, 1935, points out the advantages of short wave diathermy. Norman Titus, discussing this article in the same journal, warns us not to get too enthusiastic about short wave therapy. He suggests that research men should guide us in this new treatment which, after all, gives the same ultimate effects in another way. He warns us not to discard our old diathermy machines. (Like all new methods, short wave therapy has swept the country. Doctors, hastening to buy the new apparatus, get their information from a salesman and start on the treatments immediately. Personally, I feel that there is much to be done in this field and it will require further research work to determine its value. I feel that inexperienced operators may awaken to some disagreeable things later on, such as deep tissue burns.—T.)

\* \* \*

A high blood cholesterol may indicate thyroid deficiency.

\* \* \*

*Immune globulin* (soluble globulins obtained from human placentas by salt extraction) is being used intramuscularly for the prevention and modification of the course of measles.

\* \* \*

*Chorea of Rheumatic Origin?* Gerstley et al, *The Jour. of Pediatrics*, 1: 42, 1935, conclude that chorea may be caused by rheumatic fever, but this is only one of many immediate causes. Psychic trauma seems to be far more important, as well as pre-disposing causes such as age, environment, temperament, special constitution and possible endocrine factors. Also that chorea should not be taken as an indication of rheumatic infection without other rheumatic manifestations.

\* \* \*

*Sudden Death and Coronary Occlusion.* De Coursey, *J. Lab. and Clin. Med.*, 12: 1279, 1934, concludes: "Unless there are signs definitely indicating other disease in a white male over forty years of age who dies within three hours after the onset of either respiratory, cardiac or gastric symptoms, the cause of death is coronary occlusion." (Perhaps "probably" should be added to "is" in the last sentence.—T.)



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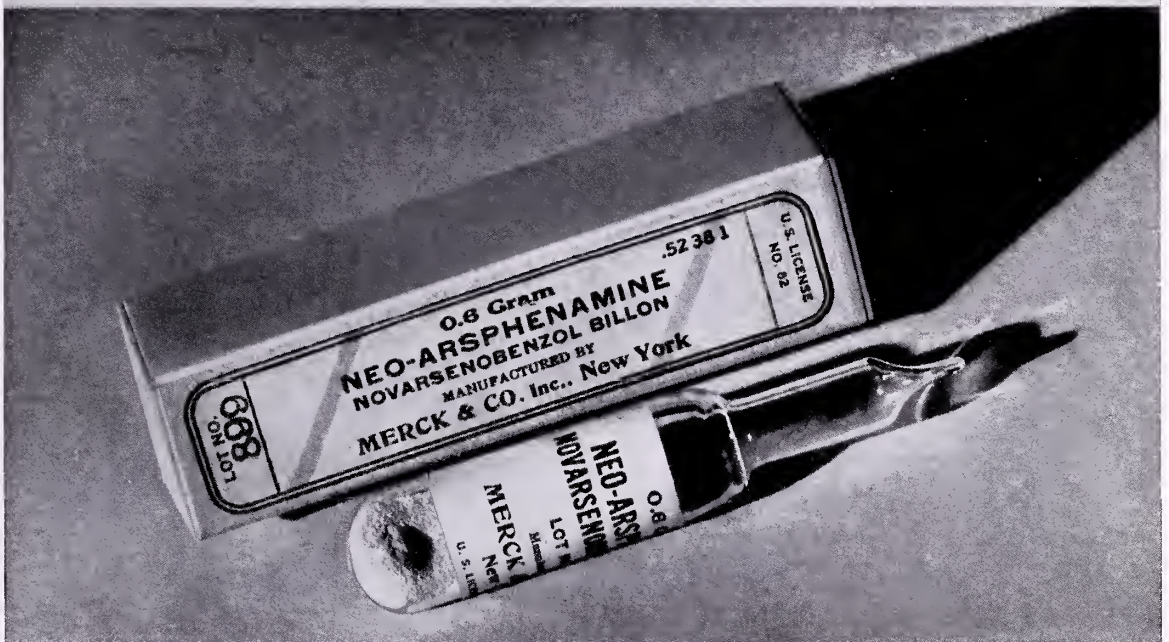


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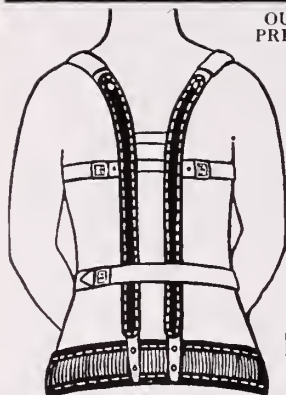
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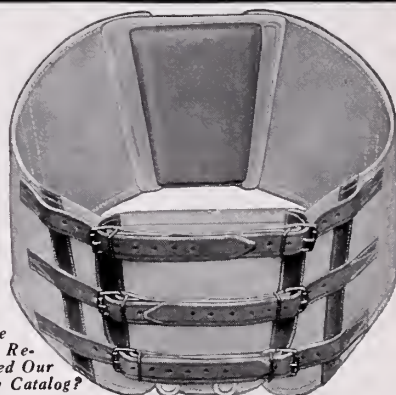
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## ALOPECIA-TRAUMATICA

By DR. B. L. DORSEY,

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In America the bald head is in greater evidence than ever, notwithstanding the fact that the scalp is receiving more attention than any other part of the body.

Thousands of so-called scalp specialists are fleecing the gullibles of millions annually for treatments of various sorts; none of which seem to be of the slightest avail in stopping the process of falling hair.

Baldness may be considered a scourge of civilization, as it is practically unknown among savages.

Why should it be so exclusively confined to men?

Lack of space forbids enumerating the various supposed causes, likewise the multitude of remedies, or even those with a money-back guarantee. However, 'tis well to consider the following:

1. Male and female scalps are identical, differing in size only.

2. Every germ found in a male scalp may also be found in a female scalp. The hair follicles, tissue and blood supply are identical in both sexes.

3. I know of no disease that is a *common cause of permanent baldness*.

4. A shiny female scalp is rare; but there are millions of shiny male domes.

5. Symptoms and sequelae of disease (omitting organs of generation) manifest no variation, regardless of gender.

6. Could any disease have special predelection for the upper anterior portion of the scalp?

Pathological ductless glands have been recently exploited as a prominent cause of Cranial Alopecia. Again women are rarely affected, yet the glands are identical.

If Alopecia (Cranial) is caused by disease, I am at a loss to know why baldness rarely occurs behind the ears (only). The anterior part of the scalp is affected and the hair on other parts of the body is unmolested.

Unable to substantiate the version of our eminent authors regarding etiology, prognosis and treatment, I cite no references and quote no authors; but present a new departure in considering *Alopecia Traumatica*, which I will definitely show is due to an *unsuspected hat*.

My findings are the results of dissection, craniometry and clinical investigation. Heretofore, research has been chiefly confined to the scalp and constitutional diseases.

Craniometry has not been considered. It seems rather unjust to judge a young man apparently in the best of health, who is losing his hair on the upper front part of his scalp, as having a dreadful glandular disease.

The hair is lost only on that part of the scalp supplied with blood from the *Temporal Arteries*, and no other part of the body. Why the partiality?

On the section of the scalp supplied by the Occipital and Posterior Auricular Arteries, the hair remains normal.

Alopecia Traumatica is found in men whose *skull is broadest over the temporal bones*. Here the temporal arteries pass over the bulging bones in such a course that a hat cannot help compressing them to a dangerous degree. On the other hand, the long skull on the sides of which the hat does not fit so closely offers more protection to the blood supply of the scalp.

Dissection of the temporal veins and arteries in a bald head will reveal that the veins and arteries have been injured by the hat band pressure and the lumen diminished, distorted, and the walls contracted. *Veins above this point enlarged and arteries diminished in size*.

Treatment (Prophylactic): It is not possible to restore the hair of which the roots are already destroyed. The only treatment that is of any avail is to protect the hair still remaining. *Remove the cause of baldness by preventing the slightest pressure over the temporal region*. Merely stretching the hat is not sufficient as the point of contact over the temples remains the same, as the hat will resume its former shape when placed on the head.

Medicine taken internally or applied externally is absolutely useless.

The man with a long skull flattened on the sides is rarely bald. The oval skull that bulges at the temporal region is usually bald.

There is a fortune awaiting the hat manufacturer who may devise a type of hat slightly more convex at this point *bridging over the temporal arteries and veins* to permit normal circulation without perceptibly distorting the hat. Such a hat will be welcomed with avidity by the man with an oval or broad skull; who *certainly can anticipate baldness* if he persists in wearing the present type of hat.

Should the gentler sex cut their hair short and wear a tight fitting hat, they will soon show symptoms of Alopecia Traumatica.

However, in the future when proper protection is given the blood supply of the scalp, we can be confident of seeing no more bald-headed men than women.

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*Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241-245★

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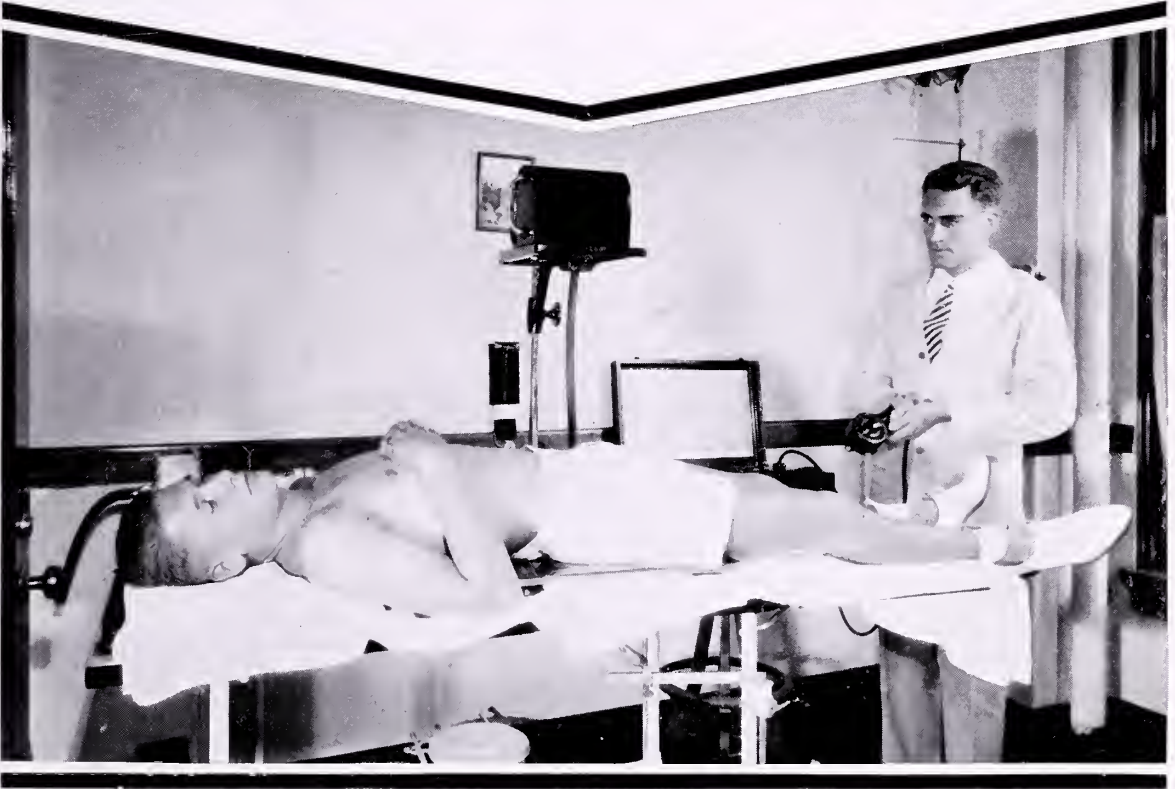


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# CANNED FOODS AND THE PUBLIC HEALTH

## III. Chemical Preservatives

• Some of our readers have inquired as to whether or not chemical preservatives are used in commercially canned foods. In certain instances, this question was inspired by the fact that "canning compounds" were formerly sold for use in home canning and preserving operations. Such compounds, however, are rarely used by the housewife of today, and never by commercial canners.

We wish to state here that *no preservatives are used in commercially canned foods.*

Spoilage of food is principally caused by the growth and multiplication in food of microorganisms such as yeasts, molds, or certain types of bacteria. These microorganisms depend upon the food they inhabit for their nutrition and their life processes produce changes in the chemical or physical characteristics of food, or both. These changes lead us to state that the food has "spoiled".

Like other living organisms, these spoilage microorganisms can grow and multiply in a food only as long as conditions remain favorable for their existence. If any environmental factor, such as temperature, moisture or acidity, becomes unfavorable, these spoilage organisms are destroyed, or their development is inhibited.

All methods of food preservation have a common underlying principle; they all alter some factor or factors in the food environment so as to render conditions unfavorable

for the growth or development of spoilage organisms in the food.

Thus, foods may be preserved by freezing or refrigeration, which serves to lower the temperature below that optimum for growth of certain spoilage organisms; dried foods keep because the moisture content has been reduced to an unfavorably low level; certain fermented foods keep because of the development of high acidity. All of these methods produce changes in the environment in which the food spoilage organisms must live.

Commercial canning is a method of food preservation in which the temperature factor in the environment is raised to a level above that optimum for growth of spoilage microorganisms. Thus, canned foods keep because in their preparation they are subjected to heat processes in hermetically sealed containers. The thermal processes raise the temperature of the foods to those temperatures at which the most resistant spoilage organisms present cannot grow or survive. (1)

The hermetic seal insures protection against future infection of the food by such organisms.

Thus, commercial canning is a method of food preservation which has for its basis the thermal destruction of spoilage organisms; no chemical preservatives are needed to insure preservation of the foods, and, consequently, none are used.

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(1) *The Microbiology of Foods*, F. W. Tanner, Twin City Pub. Co., Champaign, Ill., 1932

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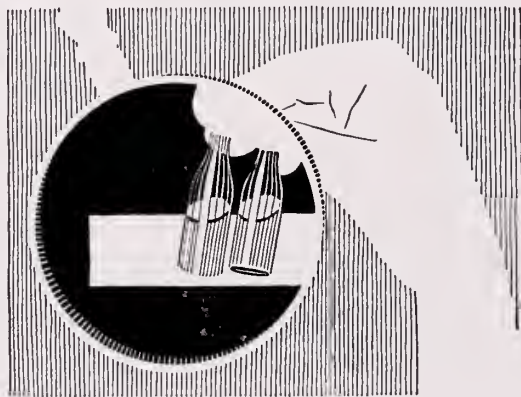




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# THE RHODE ISLAND MEDICAL JOURNAL

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## ORIGINAL ARTICLES

### SOCIAL MEDICINE AND THE DOCTOR\*

By ROLAND HAMMOND, M.D.

219 WATERMAN ST., PROVIDENCE, R. I.  
*President, Rhode Island Medical Society*

In times of great economic strain and stress, when we are called upon to pay for an orgy of spending, the hardship falls upon those least able to bear the burden. This is especially true in the case of the unfortunate and in cases of illness. Moved by commendable sympathy and zeal, certain sociologists and social workers are proposing such cure-alls as compulsory sickness insurance, advocated as a way to bring adequate medical care to all the people. This scheme has incurred the almost universal condemnation of the medical profession,—the very men who would be called upon to make it effective, and who judge it in the light of their experience.

There is no body of men which is more deeply moved by the spectacle of people in need than the medical profession. Throughout the depression, as well as before, we have offered our services unsparingly in the alleviation of the miseries of those who are unable to pay for medical care, as well as those unable to pay but part of its cost. This is a traditional, an historic obligation of the profession. The physicians of America have met this responsibility within the past five or six years, in a creditable manner, accepting their share of financial sacrifice and responsibility in good spirit.

So well has this emergency been met under the prevailing system of practice, that there has been very little lack of medical care, if the person need-

ing, or his family, will seek it. Physicians do not eject patients from their offices because they do not have cash in hand, nor do clinics close their doors to them. If the patient cannot pay the doctor in full, he pays less; if he has nothing, he is treated without cost or is referred to institutions which care for indigent patients. This is always the case if the patient *seeks* medical care; if he does not, can it be forced on him to good purpose?

But, it is claimed that there is a lack of medical care generally in this country. It is made to look as if the medical profession is withholding from people the services which it is their business to provide. This claim is based largely on the results of periodic medical examination of school children, and on the medical examination of men drafted for war service, and on certain surveys of small population groups. These reveal undoubted cases of poor health, defects which can be remedied, actual disease and medical neglect. Does this justify a belief that a system of compulsory sickness insurance would remedy the situation? It has not done so in any country where this system of medical practice is in vogue. We have no statistics whatever from such studies as these showing that any percentage of the population, desirous of medical care, and seeking it, is unable to obtain it.

We are forced to the conclusion that most of the plans proposed for the relief of low income groups originate with social theorists, salaried altruists and "charity brokers" who are anxious to enlarge the organizations they conduct and increase their personal prestige. Many such groups actually vie with one another to secure a numerical increase in the number of cases handled.

The principle is fallacious and unworthy. We should as reasonably expect the prisons and asylums of the State to compete for inmates.

The abuse of medical charity arouses the indig-

\*Read before the Providence Medical Association, January 6, 1936.

nation of the doctor, since every case of malingering prevents the extension of legitimate aid to a worthy object. The exercise of charity has now become an organized and remunerative industry in the hands of social theorists who hoodwink the government, prey upon the doctors, exploit the poor and weaken or destroy the virile American traits of self respect, resourcefulness and resolution.

Two widely antagonistic forces are struggling for control in America. On one side is the striving of individual initiative, the old pioneer spirit under which we have grown great. On the other hand is the program of regimentation, a conspiracy to have the people subjected to herd ideas, whether advantageous or otherwise.

The doctor is by instinct and training an individualist,—a most essential attribute in the struggle against disease and death, where his skill and experience must always be unhampered by social or political domination.

Regimentation, on the other hand, inhibits all chance of growth in the average mind. It diminishes efficiency in a person whose training requires him to work in congenial surroundings, untrammelled by petty rules. No medical man will be interested to practice for love of his work, research will be inhibited, enthusiasm for progress stunted.

With a full knowledge of the prevailing economic and social conditions, the medical profession has been striving to correct social evils, accommodate its work to the changing face of society and adapt its practice to modern conditions of living and industry. New forms of medical procedure are being tested in nearly all the states and unusual plans for medical service are being introduced. Just as our present system of practice and our code of ethics have been built up through many centuries of trial and error, so we realize that we must proceed slowly and by careful experimentation, in advocating changes in our methods, partly to accommodate a temporary economic condition, and partly to allow for a gradual evolution in our civilization.

These methods are too slow, however, for the social theorists, who want the world revamped

according to their own visionary fancies. The recent attempt to foist their ideas upon the public in the report of the Committee on the Cost of Medical Care was a failure because they did not appreciate the psychology of the situation. They did not realize that the public demands as an inalienable right, the privilege of choosing their own medical advisor. They will not necessarily be forced to patronize a clinic or other form of group practice.

Other forces are at work, and various committees, funds, foundations, corporations and societies are ready, at the first opportunity, to take up the fight for the socialization of medicine. Except for the strenuous efforts of the American Medical Association, such legislation would have been passed at the last session of Congress, since it was introduced and had powerful backing. We may expect a further onslaught in the session just opening at Washington.

The immediate goal which the salaried altruists hope to attain in medicine is socialization. This is a menace both to medicine and to the public. In order to accomplish their aims a large lay organization must be set up, which will control the practice of medicine.

The important question, from the point of view of the individual physician, is, what can you and I do to aid the forces of organized medicine in this fight? It is of vital importance to every one of us, because if the opposition is successful in passing legislation which is inimical to the best interests of the medical profession and the public, it will inevitably result in changed conditions of practice. Socialized medical practice will be both unsatisfactory and unremunerative. A body of men which has hitherto worked unfettered by irritating rules and regulations, will find itself at the mercy of a Federal and state bureaucracy, its methods of treatment held up to question, its very probity the subject of investigation.

It is too late to say "Oh, this can never happen." The danger is already present, and unless we are willing to fight for what is right and just we shall be the losers.

We must support the forces of organized medi-



cine which are waging the battle. A strong, active, well organized district society is the keystone of our strength. There should be a larger membership in the State Society. It is a sad truth, that there are about 125 members in this district Society who have not availed themselves of the opportunity to join the Rhode Island Medical Society. Such action would not only strengthen our defensive forces, but would offer distinct privileges to every prospective member. The advantages are many and obvious, and it seems unnecessary to call attention to them. The privilege of attending the meetings, the use of the library, and the ability to obtain liability insurance at a reduced rate under the Rhode Island Medical Society arrangement, are a few of the material benefits to be obtained. More important than all of these, however, is the responsibility which every member of a district society should feel, that he must take his part in this movement to protect his rights, and those of the public, that he should put his shoulder to the wheel and help push. The lone wolf has no standing in any pack. The power of an organized body is so evident that it deserves no mention of specific cases.

It is probable that the best solution of this vexing problem, lies in the education of the general public and legislators by the medical profession. Most of us fail to realize the great respect in which the public holds our opinions in matters affecting their health and welfare. Every physician, in his daily rounds should drop a hint or argue the question, when the subject of social security and medical legislation is under discussion. The family physician of a legislator will have great weight in helping to mould the statesman's opinions in the right direction.

The question of State medicine will be brought forcibly to the attention of the youth of this country, as well as their families, during the present school term. Eight thousand high schools throughout the country are preparing to debate the question of State medicine. The resolution is phrased as follows:

"RESOLVED, That the several states should enact legislation providing for a system of complete medical service available to all citizens at public expense."

This means that throughout the country, in secondary schools and in associated circles, the question will be under continual discussion this winter. It is estimated that audiences will total a million persons. Debaters are supplied with plenty of material, affirmative and negative, from well recognized sources. Requests for information to be used in this debate have already been received by your President, and similar appeals are coming to hand in other states.

What further proof is necessary that the subject of State medicine is not a visionary bogey? It is no longer in the offing. It is already upon us. Every physician must familiarize himself at once with the arguments pro and con of this question, since he will inevitably be subjected to a grilling by the young people during the course of family visits.

Intelligent study and discussion of the subject will throw much light on many phases of the matter. If we are to desert the system of individual practice which has made medical care in America the best obtainable anywhere in the world, and accept the principles of socialism in guarding the health and lives of the public, it should not be done until after critical analysis by the thinking people of the country has disclosed, not only the advantages which an ideal state promises to bring, but also the cruel realities which are integral in bureaucratic regimentation.

It is my firm conviction that if we are willing to use to proper advantage our great power and influence with the public, and are able to lend our individual efforts to aid the fight which organized medicine is making in our behalf, we shall see this question settled in a right and proper manner. The correct solution of this problem will not only vindicate the traditions of medical practice throughout the centuries, but it augurs the dawn of a more splendid co-operation between the medical profession, the general public, and the State and Federal governments.

Acknowledgment is made to the following splendid addresses on this subject:

"The Social Security Act and the Doctors," by Charles B. Reed, M.D., President of the Illinois State Medical Society.

"Medicine and Men," by Frederic E. Sondern, M.D., President of the Medical Society of the State of New York.

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## EDITORIALS

### THE OCHSNER-SHERREN (DELAYED) TREATMENT OF ACUTE APPENDICITIS

Many observers have followed the delayed treatment of appendicitis in some cases with excellent results. Hamilton Bailey (*The British Medical Journal*, 1: 140, 1930) states that as the diagnosis of acute appendicitis is made and when the history of attack is under 48 hours' duration, immediate operation is nearly always advised. However, as the diagnosis of acute appendicitis is made and the

history is over 50 hours' duration, one should ask oneself the question, "Is there any reason why this appendix should be removed at once?" The answer by one treated in the delayed treatment is, "It is safer to postpone operation for the time being unless (1) hyperesthesia is present; provided that the other signs are consistent, this may be taken as good evidence that the appendix is still unperforated. (2) Age under five years. (3) The diagnosis cannot be made between acute appendicitis and some other intra-abdominal catastrophe normally requiring immediate operation, especially perforated diverticulitis and perforated duodenal

ulcer. (4) General peritonitis has supervened. Only cases which have obvious general as opposed to pelvic peritonitis are excepted. (5) The recent ingestion of a powerful purgative may be a justifiable indication.

Bailey feels that the key to lowering the total mortality of appendicitis is to be found in the standardization of the type of case to be treated by immediate operation together with the proper selection of patients for the Ochsner-Sherren technique.

In these delayed treatments the appendix is removed in due course. Bailey feels that the advantages of the delayed treatment are that subphrenic abscess is almost unknown; pyelephlebitis does not occur; intestinal obstruction is very much rarer than after immediate operation; there is no hardship to the patient.

More recent reports show that this form of treatment is being used in various parts of England with as good results as those reported at earlier dates. These observers feel that this is an excellent method, in selected cases, to reduce the mortality of this disease.

#### REPORT OF THE 1935 EPIDEMIC OF ACUTE ANTERIOR POLIOMYELITIS\*

By KALEI K. GREGORY, M.D.

DENNETT L. RICHARDSON, M.D., EDWARD J. WEST, M.D.,  
RAYMOND E. STEVENS, M.D.

*Collaborators*

During the epidemic of acute anterior poliomyelitis that has just passed, 228 patients were admitted to the Charles V. Chapin Hospital of which 126 were from Providence and 102 from cities and towns in Rhode Island and nearby Massachusetts. This number includes a fatal case in January. The first case of the epidemic admitted to the hospital was on July 5. The total number of cases admitted in July was 7, in August 83, in September 96, in October 29, and in November 12. The peak of admissions was during the week ending August 31, with 43 cases. For eighteen days, from September 22 to October 10, there were 100 or more cases of acute poliomyelitis in the hospital. The largest number of cases in the hospital at any one time was 115 on October 3. It is interesting to note that during the peak of the epidemic the number of cases of other infectious diseases usually admitted to the hospital at this time dropped to a very small number.

\*Read before the Providence Medical Association, December 2d, 1935.

(Continued on page 48)

## THE JOURNAL'S COLUMN

To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

### AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

"Letters to the Editor" are considered to be the personal expression of the writer's opinion upon the subject of which he writes.

The RHODE ISLAND MEDICAL JOURNAL disclaims any responsibility for these opinions and is not to be held accountable for any sentiment therein expressed or implied.

### BOOKS RECEIVED FOR REVIEW

#### A TEXTBOOK OF SURGERY:

By American Authors. Edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School; Chief Surgeon, Evanston (Illinois) Hospital, 1608 pages with 1394 illustrations on 730 figures. Philadelphia and London: W. B. Saunders Company, 1936. Cloth, \$10.00 net.

#### EXAMINATION OF THE PATIENT AND SYMPTOMATIC DIAGNOSIS:

By John Watts Murray, M.D.; with 274 illustrations. Second Edition. St. Louis, The C. V. Mosby Company, 1936. Price, \$10.00.

#### ABORTION, SPONTANEOUS AND INDUCED: MEDICAL AND SOCIAL ASPECTS

By Frederick J. Taussig, M.D., F.A.C.S., Professor of Clinical Obstetrics and Clinical Gynecol-



ogy, Washington University School of Medicine, St. Louis. Illustrated. This volume is one of a series sponsored by the National Committee on Maternal Health, Inc. St. Louis, The C. V. Mosby Company, 1936. Price, \$7.50.

SYNOPSIS OF CLINICAL LABORATORY METHODS:

By W. E. Bray, B.A., M.D., Professor of Clinical Pathology, University of Virginia; Director of Clinical Laboratories, University of Virginia Hospital. Thirty-two illustrations. Eleven color plates. St. Louis, The C. V. Mosby Company, 1936. Price, \$3.75.

MEDICAL PAPERS DEDICATED TO HENRY ASBURY CHRISTIAN, PHYSICIAN AND SURGEON:

From his present and past associates and house officers at the Peter Bent Brigham Hospital, Boston, Mass. In honor of his sixtieth birthday, February 17, 1936. The Williams & Wilkins Company, William Wood & Company, Baltimore, 1936.

REPORT OF THE 1935 EPIDEMIC OF ACUTE ANTERIOR POLIOMYELITIS

(Continued from page 47)

This has been the second major epidemic of acute anterior poliomyelitis in this vicinity during the past four years and the largest in the history of the State. The first was in the summer and fall of 1931 with 129 admissions to the hospital. There were 10 deaths, a fatality rate of 7.8%.<sup>1</sup>

The age distribution of the cases in this present epidemic is as follows:

Under 1 year.....	7	10-14 years .....	36
1-4 years .....	79	15-19 years .....	10
5-9 years .....	81	Adults .....	14

The oldest patient in the present group of admissions was 52 years, and the youngest 30 days old.

There have been 16 deaths in the present series of cases, a fatality rate of 7.1%, which is slightly lower than the 1931 epidemic. The first death was an isolated case in January. There was no death in July, there were 8 deaths in August, 5 in September, 1 in October, and 1 in November.

The age distribution of the deaths is as follows:

1 death at 2 years	1 death at 13 years
2 deaths at 6 years	1 death at 15 years
5 deaths at 7 years	1 death at 17 years
1 death at 8 years	1 death at 27 years
1 death at 9 years	1 death at 29 years
1 death at 12 years	

Five of the deaths were of the Landry's or ascending type of the disease. Ten patients died of primary bulbar paralysis. One, an adult, with extensive

paralysis involving the legs, arms, urinary bladder, bowels, diaphragm, and the respiratory muscles, died 39 days after admission of a secondary infection, probably pneumonia. This patient had been in the respirator continuously since admission.

Acute anterior poliomyelitis is a communicable disease. The virus is carried about in the nose and throat of the patient and carrier. The incidence of the clinical type of the disease is low but the communicability is high. There is evidence to show that hundreds and perhaps thousands of the inhabitants in a given community are either carriers or have had the disease in a very mild or abortive form during an epidemic. It is when one believes in this idea that the apparent mysterious behavior of poliomyelitis, current among the lay population as well as among many physicians, becomes clear. This idea is no longer a theory or a speculation. There is enough proof on hand now to make it a fact. We do not make a mystery of the behavior of acute epidemic cerebrospinal meningitis or of encephalitis lethargica, and yet these two diseases behave very much the same way as anterior poliomyelitis. Unfortunately, we have no practical means at present of determining infection with the poliomyelitis virus before the invasion of the central nervous system and the appearance of clinical signs.

In the epidemic of 1931, two student nurses developed infantile paralysis at the Charles V. Chapin Hospital. During the present epidemic, no one has contracted the disease at the hospital. But a warning has come from California. During an epidemic of anterior poliomyelitis last year (1934) as reported from the Los Angeles County Hospital,<sup>2</sup> 16, or 10% of the 160 physicians living in the hospital developed infantile paralysis; 27, or 36% of the 75 nurses working in the communicable disease unit and living in the hospital contracted the disease. Those living outside of the hospital had a lower attack rate of the disease. This astounding report is a warning to the physicians and health officers in this country. What this means for the future is speculative. This mild, well-mannered pet may grow up to be a very vicious creature.

Seventy of the 228 cases had no paralysis on admission to the hospital. Of these, 18 subsequently developed paralysis of varying degrees and 2 died. Fifty-two remained unaffected throughout their stay in the hospital. It was interesting to note that toward the end of the outbreak, more and more of the non-paralytic type of the disease were admitted. Of the first half, or 114 cases admitted to the hos-

pital, 28 had no paralysis, and of the second half (114) of admissions, 42 were without paralysis. The wide publicity through the newspapers and the radio may have been a factor in bringing patients to the physician in the early stages of the disease, but we believe the chief factor is that the severity of the disease decreases as the epidemic wanes. This is true of epidemics of other infectious diseases. In the 1931 epidemic of poliomyelitis, 54 of the 129 cases were admitted in the non-paralytic stage, 5 developed paralysis while in the hospital, and 49 were discharged without paralysis.<sup>1</sup>

An analysis of the symptoms and physical findings of the cases in this present outbreak has been very interesting. Almost every conceivable type of this disease described in the literature was seen.

In a great number of cases, the earliest symptoms are evidences of a mild upper respiratory infection, invariably a slight sore throat, and fever. In a day or two, the patient seems better and is allowed up. About the second or third day after this apparent invasive period, symptoms of headache, fever, irritability, vomiting, pain in the neck and back, and sometimes pain in the extremities appear. These recurrent prodromal symptoms have been described as the dromedary (a term now considered erroneous) or diaphasic form of onset of the disease.<sup>3,4</sup> 46% of our admissions gave this diaphasic form of onset before paralysis which appeared usually from one to three days after the second phase. A few patients developed paralysis suddenly without having any prodromal symptoms whatsoever. The rest of the cases, approximately 50%, gave a history of preliminary illness before clinical symptoms or paralysis appeared, anywhere from one to seven days. Constipation, rather than diarrhea, is present in 98% of our cases. One of the most noticeable symptoms in this outbreak is somnolence. The patient can be easily aroused but when left alone falls asleep again. The paralysis is completed usually within three days, occasionally longer, especially in adult patients.

The diagnosis of acute anterior poliomyelitis in its earliest stages in the inter-epidemic period is difficult except to the experienced physician. The appearance of flaccid paralysis of course is a very conclusive sign. The diagnosis is relatively easier during an epidemic. A good history of the patient is essential. When a child presents symptoms of an acute infection accompanied by headache, vomiting, irritability, pain or stiffness in the neck and back, constipation or diarrhea, perhaps pain or tenderness

in the extremities, and with a history of slight illness a few days previous, then poliomyelitis should be suspected especially during an epidemic of the disease.

The physical findings in the average case are quite characteristic. The patient lies quietly, usually does not appear sick, but does not want to be disturbed. The neck is moderately stiff when the head is flexed on the chest and the patient complains of pain in the upper back or in the lumbar region. The spine is straight and stiff when anterior flexion on the thigh is attempted. When the sitting position is attained, the patient braces himself with both arms to keep from falling back. This posture, with the stiff back, the extended arms, and the bed, forms the so-called "tripod sign." If then the child is asked to bend forward and touch his knee with his chin, the answer is "I can't." This is the so-called "audible sign." The reflexes are at first exaggerated and then if the paralysis is to follow, become diminished and finally lost. During this epidemic these findings have been lacking in about 15% of the cases, thus making the diagnosis difficult. Fortunately at this stage of the disease pathological changes in the cerebrospinal fluid have already taken place in the great majority of patients to aid in the diagnosis.

Examination of the spinal fluid in our cases invariably shows a slight increase in globulin as tested by Pandy's reagent. The cell counts range from 10 to 1700 per cubic m.m. In the majority of cases the cell count varied between 20 and 200. Two patients in our group of cases showed negative cell count, but the diagnosis was confirmed in one patient by a marked weakness in one leg, and in the other by a paralysis of the wrists, hands, arms, and legs. The differential count in our experience shows a high percentage of lymphocytes, and only occasionally a high percentage of polymorphonuclear cells. The sugar and chloride content are within the normal limits. The leucocyte count of the blood is of little help in the diagnosis of this disease. The count may be normal or very high.

A very careful examination is necessary in order to detect weakness of muscle and this is not always easy in small children. In addition to the usual distribution of paralysis in the extremities and trunk, there has been an unusually large number of paresis of the urinary bladder with resultant retention of urine. We had 20 patients with this complaint. Older patients as well as very young children were affected. The retention for the most part was of



short duration, lasting usually from two to five days but in four adult patients it was necessary to insert an indwelling catheter for two to three weeks. All except one, a fatal case, recovered the normal use of the bladder. Sensory disturbances with marked hyperesthesia were observed in a few patients. These patients could not tolerate even the touch of bedclothing. One patient had acute arthritis of the ankles and knees along with paralysis involving both legs. A most interesting observation in this group of cases was the recurrence of acute symptoms and the extension of paralysis in one case when to all appearances the patient was well along in the convalescent period. Patients with relapses or exacerbations of this disease have been reported in the literature, but this was the first case we had seen. The explanation of this clinical variance is not obvious.

The distribution and the degree of paralysis in our cases was so diversified that it could not be tabulated in a paper of this sort. Perhaps the most unusual finding in this outbreak is the large number of patients showing involvement of the higher centres of the central nervous system. Forty-two of the 228 admissions showed evidence of injury to the vital centres. Fifteen of this group died, 5 with the ascending type of paralysis and 10 with primary bulbar involvement. Twenty-seven survived and some were subsequently discharged with little or no residual paralysis attributable to destruction of the cranial nerve ganglion. Somnolence was very marked in these types of cases. Several exhibited such marked drowsiness that they could not be distinguished from encephalitis lethargica. Subsequent events, however, confirmed the diagnosis of acute anterior poliomyelitis. The duration of the somnolence was from seven to ten days. One patient on recovering became maniacal and had to be transferred to the psychopathic ward.

Paralysis due to injury of nerve centres in the pons and medulla occurs most frequently in these cases. Paralysis of the glossopharyngeal nerve gives a nasal tone to the voice, and causes difficulty in swallowing. If given fluid to drink the patient is unable to swallow or spit it out, the fluid coming out through the nostrils. The patient becomes cyanotic and greatly frightened. Large quantity of mucus collects in the throat, and in untreated cases the mucus gravitates into the trachea and bronchi. This is usually a fatal sign. Paralysis of the facial nerve, usually on one side, may manifest its central origin by the distribution of paralysis or in some

cases completely as in Bell' Palsy. The abducens nerve is the next frequently affected causing an internal strabismus usually on one side. The nerve which innervates the tongue, the hypoglossus, is also most commonly injured, causing the tongue to protrude toward the affected side. The third cranial nerve, the oculomotor, is likewise affected and results in ptosis of the eye-lid and loss of convergence, also disturbance of ocular rotation. In fatal cases the vagus nerves and the respiratory centre are involved, the latter being characterized by the Cheyne-Stokes type of respiration. Any or all of these nerves may be affected. An extensive involvement usually ends fatally. An unusual type of this disease was seen with symptoms of bulbar paralysis occurring first followed by paralysis of the shoulders and arm. This has been described as the descending type of paralysis. A few patients show, in addition to the marked drowsiness, both fine and coarse tremors of the arms and hands. Two patients in particular showed choreiform movements of the upper extremities and dizziness on sitting up suggesting involvement of the cerebellum. One of these patients, on recovering from the somnolence, could not speak for several days but once he started talking he could not be stopped. He eventually recovered without any obvious residual paralysis.

The treatment of anterior poliomyelitis in the acute stage is, at best, unsatisfactory at the present time. The one means upon which great hope was based—the human convalescent serum or blood—has not shown conclusively good results. However, individual reports from everywhere in this country as well as from abroad show optimism. Our own report of the 1931 epidemic was very favorable on the use of the human serum but a compilation of all these reports showed anything but good results.<sup>5</sup> But however disappointing this may be, the use of the human convalescent serum should not be discouraged. Wesselhoeft, in an excellent paper<sup>5</sup> on this subject, reminded us of the fact that the results of the first serious clinically controlled hospital study of diphtheria antitoxin collected by Bingel in an elaborate protocol in 1918 were unfavorable to antitoxin treatment but no one now doubts the efficiency of this remarkable discovery.

There are several factors which of necessity influence the efficiency of the human convalescent serum in acute poliomyelitis. We will discuss only one of these which to our mind is of prime importance and that is the stage of the disease at the time



of treatment. We do not mean the stage of the disease clinically, but the stage of the disease pathologically. Investigators working with monkeys assure us that examinations of the spinal cord of these animals infected with the poliomyelitis virus and killed in the preparalytic stage of the disease show advanced pathological changes without the animals showing any clinical findings aside from the primary symptom<sup>6</sup> which means that even if serum is given in the clinical preparalytic stage the damage has already been done, hence the indifferent results. This is not surprising when one remembers the experience with human serum therapy in other virus infecting diseases such as in measles. This very efficient human convalescent serum becomes less effective when given late in the incubation period and useless when given after symptoms of measles appear. This leaves us with the only one alternative, that of giving the serum either at the very earliest onset of illness or even before this. Of course the difficulty in diagnosis comes in, for there is no practical means of determining whether the slight upper respiratory complaint and the slight headache and sore throat are symptoms of acute poliomyelitis or of a common ordinary cold. But if one desires and uses the serum at this stage, there would be no harm done and perhaps a great deal may be profited by it. In other words, the human convalescent serum may logically be used as a means of developing passive immunity for protection during an epidemic unless we can find something better. We are again reminded of the California epidemic. At the Los Angeles County Hospital<sup>2</sup> prophylactic serum was given to all employees who elected to take it. Twenty cubic centimeters of either convalescent pooled or normal pooled serum was given and repeated every two weeks. Of the 3,986 employees in the entire hospital, 892 were given the prophylactic human serum, and 61 or 6.8% developed poliomyelitis. 3,094 employees received no serum; of these 54 or 1.7% came down with the disease. An analysis of the 115 who developed infantile paralysis shows that 61 or 52.6% had received serum and 54 or 47.4% had not. The unusually high rate of communicability of this epidemic gave an excellent opportunity to test out the value of human serum as a prophylaxis against anterior poliomyelitis. The results seem to be discouraging, but this should not be considered conclusive until more experience with this manner of treatment is obtained.

At the beginning of the epidemic of poliomyelitis

in July, we took a non-committant attitude toward the use of convalescent human serum for treatment. Of the 68 cases who were admitted without paralysis, 26 were given convalescent human serum in doses of 40 to 80 cc. intravenously; this being now considered the method of choice. Sixteen or 61.5% of the treated cases were discharged without paralysis, and 10 or 38.5% with varying degrees of paralysis. Thirty-four or 81% of the 42 patients who did not receive serum went home without paralysis and 8 or 19% developed paralysis. Two of the patients who received serum developed bulbar paralysis and died.

The treatment of the paralytic cases consisted of symptomatic medication. An effort was made to keep the extremities warm and comfortable, to keep the bedclothing off the toes, and to keep the child quiet. The orthopedic surgeon was called in early in the outbreak and splints and frames were supplied. This helped to prevent contracture and weakening of the muscles from overuse. It is our belief that early light massage, passive motion of the joints, and very limited muscle re-education should be begun; not of course while there is much tenderness, although we have observed tenderness to disappear under this treatment. A trained masseuse was engaged early in September to work with the orthopedic surgeon.

With the use of the respirator it has been possible to save several lives. In the bulbar cases the respirator has been of little value. The ideal case for the respirator is one in which the respiratory muscles are paralyzed. After several weeks these muscles recover sufficiently to allow the patient to breathe without aid. These patients should be kept in the respirator for a long time because they are very susceptible to pulmonary infection. There have been six cases in which the use of the respirator has been a life saving measure.

Patients with extensive bulbar paralysis invariably died. Ten out of the sixteen deaths in our series were due to primary bulbar paralysis. The use of suction, postural drainage, and atropine was helpful but it did not save the patients in the majority of cases. Oxygen was used to relieve the cyanosis. These patients usually die within 48 hours from the time mucus collects in the throat and paralysis of the glossopharyngeal nerve. Naturally we felt helpless. Then it occurred to us that if we could by some means keep these patients alive 24 or 48 hours longer or until the height of the acute stage and edema of the medulla had subsided, they might live.

With this in mind, we began in earnest to reduce the edema by the dehydration process. We were well aware of the fact that we could not save those in whom the nerve centres were actually destroyed by the disease process even if we could relieve the edema of the brain. We anticipated failures. However, we felt that if we could save one patient, we would consider the effort repaid. It may be said here that the use of dehydrating substances for relieving edema in the brain is not a new thing. We decided to use 50 cc. of 50% glucose intravenously every 4 or 6 hours; and the intramuscular injection of 2 cc. of 50% magnesium sulphate every 2 hours for six doses, this to be repeated for another course of six doses as the case might be. This plan was carried out on two patients who were admitted at about the same time. These two cases were extremely sick and judging from our past experience were doomed to die. Nothing was given by mouth and intravenous normal saline with 10% glucose was given to supply fluid. We felt that the muscles of the throat needed just as much rest in the acute stage as any similarly affected muscle in other parts of the body. After the acute stage had passed, usually in 24 or 48 hours, feeding through a nasal tube was given until the patient could swallow without choking. We were rewarded for our efforts with recovery of the two patients. This proved to us our belief that a goodly number of these cases die because of the edema in the medulla rather than the destruction of the nerve cells. Furthermore these two patients recovered completely except for a persistent nasal twang. Twelve other cases were treated similarly, making a total of fourteen. Seven of these were of the primary type of bulbar paralysis, and were seriously sick. Seven others were not so seriously ill and might have survived anyway but were given the benefit of the doubt and also received the dehydrating treatment. Three of the seven seriously sick died and four survived. All seven of the less sick lived with the exception of one who died 39 days later of secondary infection, probably pneumonia. This number of cases treated in this way is very small upon which to draw any definite conclusion but we feel that it should be given a good trial.

The total number of patients admitted to the hospital with the provisional diagnosis of acute anterior poliomyelitis was 326. The diagnosis was confirmed in 228 cases and not confirmed in 98.

These 98 cases were variously diagnosed as follows:

Nasopharyngitis .....	18	Rheumatic fever .....	3
Acute tonsillitis .....	10	Trauma .....	3
Acute pharyngitis .....	7	Bell's Palsy .....	2
Acute influenza .....	6	Scarlet fever .....	2
Osteomyelitis .....	3	Hysteria, etc. ....	1
Tuberculous meningitis.....	3		

Sixteen were discharged without a diagnosis and four as having no disease. Twenty-nine different diagnoses were made. The majority of these admissions manifested upper respiratory infections which were, with the exception of five, of very mild nature. These cases, thirty-five in number, together with the sixteen in whom no diagnosis was possible, and the six influenza cases, may have been in reality the sub-clinical or abortive type of acute anterior poliomyelitis.

#### Summary

From January 1st to November 30th, 228 cases of acute anterior poliomyelitis were cared for at the Charles V. Chapin Hospital. Sixteen of the cases died, a fatality rate of 7.1%. Seventy patients were admitted in the preparalytic stage of the disease, 28 developed paralysis, and 59 were discharged without paralysis.

The diaphasic form of the preliminary symptoms of poliomyelitis was a prominent feature in this epidemic. Vomiting and constipation were the chief gastro-intestinal complaints. Somnolence was more marked than usual. Paresis of the urinary bladder with resultant retention of urine was frequent.

A wide variety of clinical types of the disease was seen. Involvement of the higher centres of the central nervous system was frequent. Primary bulbar paralysis accounted for ten of the deaths.

The number of cases treated with the convalescent human serum was too small to be of any significance. A dehydration method of relieving edema of the brain in the encephalitic and bulbar types of the disease showed apparent good results.

#### REFERENCES

1. D. L. Richardson, M.D., and E. J. West, M.D. Rhode Island Medical Journal. Vol. XV, No. 6, p. 100, June, 1932.
2. John E. Kessell, Anson S. Hoyt, and Roy T. Fisk. American Journal of Public Health, Vol. 24, No. 12, 1215-1223.
3. Maurice Brodie and S. Bernard Wortis. Archives of Neurology and Psychiatry, 32: 1159, December, 1934.
4. S. D. Kramer, M.D. Rhode Island Medical Journal, Vol. XIV, No. 5, 69-73, May, 1931.
5. Conrad Wesselhoeft, M.D. The Journal of Pediatrics, Vol. III, No. 2, p. 330, August, 1933.
6. Hurst, cited by Boyd. The Pathology of Internal Diseases, Lea & Febiger, p. 751, 1932.



## SOCIETIES

### THE RHODE ISLAND MEDICAL SOCIETY COUNCIL MEETING

February 19, 1936

The regular quarterly meeting of the Council was held February 19, 1936, at the Medical Library, and was called to order at 4:30 P. M. by the President, Dr. Roland Hammond.

A communication from the California Medical Association objecting to the editor of the Journal of the A. M. A. with reference to a syndicated column in the newspaper was read by the secretary, and it was voted to lay the matter on the table.

The following communication from the Committee on Medical Economics was read: "At a meeting of the Committee on Medical Economics January 3rd, 1936, at 4:50 P. M. at the Medical Library the following motion was adopted:

"This committee recommends to the Council of the Rhode Island Medical Society that all members of District Societies are automatically members of the State Society and that the treasurer of each District Society shall remit to the State Society \$10.00 yearly for each member enrolled to the District Society."

It was the general consensus of the Councillors that such action should be initiated through the District Society as being a unit on which organized medicine is founded, and that the R. I. Medical Society did not wish to appear in the role of coercing the District Society.

It was moved and seconded that the secretary be instructed to communicate this resolution to the various District Societies for their consideration and such action as they determine fit. So voted.

The question of physicians maintaining their membership in the R. I. Medical Society after lapsing of their membership in their District Society has occurred, was discussed. The secretary pointed out that this is very likely to occur by reason of the failure of the District Societies' secretaries to notify the secretary of the R. I. Medical Society of District members who have been dropped or who have resigned from membership in the District Society. He pointed out that it was only by the closest co-operation between the secretary of the District Society and the secretary of the R. I. Medical Society that the status of the Fellows of the R. I. Medical Society with refer-

ence to their District Society can be brought to his knowledge.

It was also voted that this matter be brought to the attention of the Committee on Change in By-Laws.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D.,  
*Secretary.*

### HOUSE OF DELEGATES

The regular quarterly meeting of the House of Delegates was held February 19, 1936, at the Medical Library and was called to order at 5 P. M. by the President, Dr. Roland Hammond.

The minutes of the meeting of the Council held just immediately preceding this meeting were presented orally by the secretary.

A letter from Dr. Frank W. Dimmitt, chairman of the Committee to Consider the Situation of the Hard-of-Hearing School Children, of the Providence Medical Association, suggesting that a committee be appointed from the R. I. Medical Society for the purpose of improving the condition of the deafened children was read by the secretary as follows: "About two months ago the Providence Medical Association appointed a committee, of which I am chairman, to consider the situation of the hard-of-hearing children in the schools. We have gone into the matter and are making a report to the Providence Association. I do not know how much is being done in any other sections of the state in regard to this problem, but it seems to us that the R. I. Society might interest itself in the matter. Perhaps a committee might be appointed to get in touch with the various educational units throughout the state and furnish them with some information as to what can and should be done to improve the lot of children handicapped by hearing difficulties.

FRANK W. DIMMITT, *Chairman.*"

A motion was made and seconded that a committee be appointed by the President for this purpose. So voted.

The following communication of the Committee on Medical Economics was presented:

"At a meeting of the Committee on Medical Economics January 3rd, 1936, at 4:50 P. M. at the Medical Library the following motion was adopted:

"At the request of the Department of Labor this committee recommends to the Rhode Is-



land Medical Society that a committee be appointed by the President of not less than three nor more than five to act as an advisory committee to the Director of Labor to be known as the Committee on Workman's Compensation Act.' "

On motion of Dr. Kingman and duly seconded, it was voted that a committee of not less than three and no more than five be appointed, to be known as the Advisory Committee of the Workman's Compensation Act, by the President. Committee appointed: Dr. W. A. Mahoney, Dr. H. E. Harris, Dr. J. W. Leech.

On motion of Dr. Kingman, duly seconded, it was voted that the President, Secretary, and one member of the House of Delegates not an officer of the Society be appointed by the President as a Nominating Committee to put in nominations for officers and members of the Standing Committees for the ensuing year at the meeting of the House of Delegates preceding the annual meeting of the R. I. Medical Society. Committee appointed: Dr. R. Hammond, President, Dr. J. W. Leech, Secretary, and Dr. C. S. Christie.

The following letter from Dr. Norman S. Garrison was presented: "I hereby tender my resignation as a member of the Committee on Public Health Clinics. I find myself, unfortunately, unable to devote to it the proper time and consideration such membership implies." It was voted to accept with regrets Dr. Garrison's resignation from this committee. Dr. Henri Gauthier was appointed in Dr. Garrison's place.

A letter from Dr. J. W. Helfrich, Westerly, protesting the proposed installation of a health unit in Washington County was presented. The plan proposes a full time health officer with nurses under his direction. It was voted that the matter be referred to the Committee on Medical Economics with the suggestion that they confer with the State Commissioner of Health for further information on the matter.

A letter from the Women's Auxiliary to the A. M. A. requesting a place on the program of the March meeting for the purpose of urging the organization of a branch in Rhode Island was presented by the Treasurer. In view of the fact that the Committee on Scientific Program have already filled the program for that meeting it was voted to table the request.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D.,  
Secretary.

#### PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William S. Streker, Monday evening, February 3, 1936, at 8:35 o'clock.

The minutes of the last meeting were read and approved.

The Standing Committee having approved their applications the following were elected to membership:

Francis L. Burns  
Seebert J. Goldowsky

The following obituaries were read—on Dr. Rufus Carver by Dr. H. G. Partridge; on Dr. Horace Williams by Dr. Harvey E. Wellman; on Dr. Franklin P. Capron by Dr. Herman Pitts. It was voted to spread these on the records and to send copies to the families.

Dr. Arthur T. Jones read a letter from the American Foundation for Studies in Government in which the opinion and feeling of physicians are sought in regard to economic and social questions relating to the practice of medicine. A show of hands revealed that twelve of the members had received this letter, but that only two had answered it. Dr. Pitts stated that it was his intention to answer it as soon as he could find time. The President read a letter from Dr. Leland of the Bureau of Economics of the American Medical Association indicating that this is apparently a serious and sincere attempt to get the view point of physicians. The President, Dr. Streker, stated that the members should grasp this opportunity to put forward their ideas on these subjects.

The first paper of the evening was given by Dr. Soma Weiss, Associate Professor of Medicine, Harvard Medical School, and was entitled "The Clinical Significance and Management of Syncope." Dr. Weiss first gave a classification of various types of syncope, such as the vaso-vagal type seen in convalescence, carotid sinus reflex, vago-vagal (Stokes-Adams), pleural, pericardial and peritoneal shock, syncope from vaso-motor stimulation (e.g. cocaine) Adams-Stokes of non-reflex origin, syncope with tachycardia, syncope anginosa, syncope of congestive failure, of postural hypotension, of cerebral engorgement, of pulmonary engorgement and with dissecting aneurysm, Nothnagel and Gower's syndrome. Dr. Weiss then discussed examples and manifestations of main types, and concluded with discussion of differential diagnosis between syncope and epilepsy, an important

distinction since syncope is common and curable and epilepsy is common and not curable.

The paper was discussed by Dr. Henry L. C. Weyler and Dr. Jerome McCaffry.

The second paper of the evening was read by Dr. Russell S. Bray and was entitled "Non-Tropical Sprue: a clinical report." There were four cases presented. Important symptomatic features were—chronic diarrhea, loss of weight and strength, edema of ankles, anorexia, and meteorism. Tetanic manifestations occurred in two patients. Glossitis in three patients. Each patient presented a long history: that is, symptoms of one kind or another had been present for many years. Laboratory findings: Persistent fat in stools. Achlorhydria in three patients. Macrocytic anemia in three patients. Low serum protein in all patients. Normal blood sugar. Low blood calcium in three patients. Normal X-ray (G.I.) findings. No osteoporosis. Course of illness—Three patients succumbed to the disease. In the living patient the tongue became normal, free HCL appeared. Blood picture remained practically unchanged. Steatorrhea continues. Excellent symptomatic results. Treatment: Many remedies tried. Intensive liver therapy failed to produce the remarkable results reported by other investigators. Cause: Unknown etiology, but much evidence to support the idea of a deficiency state. Also a question of whether the deficiency state is actually secondary to the primary disease (disturbed absorption of fat).

The paper was discussed by Drs. Francis Chafee, H. A. Lawson, Ira Nichols, F. B. Cutts, Egoville and Bowman.

The meeting adjourned at 10:35 P. M. Attendance 178. Collation was served.

Respectfully submitted,  
HERMAN A. LAWSON,  
Secretary.

The Providence Medical Association held nine meetings during the year 1935 with a total attendance of 1519, which is 207 more than last year. The constantly increasing attendance at meetings has been striking for six years. Fifteen years ago the average attendance was 77 and it stayed about here till the depression was a year old when it suddenly began to grow and this year it has been 169. And this cannot be attributed to the size of the membership which has grown from 328 to 498, about 50 per cent, the attendance increase being about 120 per cent. The collations have kept at their old time level and probably a thirst for

knowledge and a hunger for food have both been augmented since 1928.

Eleven papers were read by members and ten by guests and the discussions were participated in by twenty-five members and seven guests.

Only one case was presented by a member.

The following were elected to membership: Elizabeth H. Sumberg, Elihu Saklad, George R. Mankis, Joseph C. Kent, Richard E. Allen, George E. Reynolds, Margaret B. Ross, Richard S. Arlen, Mark A. Yessian, George J. Dwyer, Edward J. West, Bruno G. DeFusco, Mario L. Palmieri, Americo Del Selva, Walter S. Jones, Dimetra Tsina-Elia, Vincent T. A. Bianchini, Mary Corcione, Joseph C. Flynn, Harold F. Harrington, Walter E. Hayes, Howard G. Laskey, Samuel Pritzker, Rodrigo P. DaC. Rego, Michael A. Tarro, Frederick A. Webster, Daniel D. Young, Reginald A. Allen, Ernest D. Thompson, Clara Loitman-Smith, Bernard C. Wise, James R. McKendry, Charles P. Fitzpatrick, John C. Ham.

The following were dropped for non-payment of dues: George W. Burton, Rudolph O. Fager, John F. Oslin, Patrick A. Lynam, William A. Stoops.

The Association lost this year by death: Pasquale Conca, S. Newell Smith, Oscar M. Unger, A. Arlington Fisher, Clifford H. Griffin, John W. Keefe, Francis J. Higgins, Horace N. Williams, Franklin P. Capron, B. J. Lillibridge, Rufus Herbert Carver.

During the year the Association appropriated a large amount of money for improvements in the meeting place and the delightful aspect of this room is sufficient testimony to the thoughtful work done by the committee in charge.

At the April meeting an amendment to Article VII of the By-Laws was voted and to deal with this a permanent committee on Ethics and Department was appointed.

The Standing Committee of the Providence Medical Association held nine meetings during the year 1935. Thirty-one applications for membership were approved.

ANNUAL REPORT OF TREASURER — 1935	
Donation, R. I. Medical Society.....	\$450.00
Collations .....	600.00
MEDICAL JOURNALS .....	248.25
Binding JOURNALS .....	249.25
General Expenses .....	363.36
Secretary to Treasurer.....	150.00
Repairs in Hall.....	2,955.58
	<hr/>
	\$5,016.44
Cash on Hand January 1, 1936.....	\$1,423.37

ANNUAL REPORT OF TREASURER — 1935

Cash on Hand January 1, 1935.....	\$2,228.69
Checks not cashed December, 1934.....	378.85
	<hr/> 1,849.84
Annual Dues .....	2,239.84
Transferred from Participation Acct.	2,255.06
Checks not cashed December, 1935.....	95.25
	<hr/> 6,439.99
Federal tax on checks December, 1934	.18
	<hr/> \$6,439.81

PETER PINEO CHASE,  
*Secretary.*

PAWTUCKET MEDICAL ASSOCIATION

The regular meeting of the Pawtucket Medical Association was held at the Memorial Hospital, Nurses' Auditorium, on February 20, 1936, the President, Dr. W. Dufresne, presiding.

On the recommendation of the Standing Committee and the majority vote of the members present at the meeting an amendment to the constitution was made which automatically makes each new member of the Pawtucket Medical Association a member of the State Medical Association, and taxes due the State Medical Association are collectible by the Treasurer of the district organization.

Routine business was conducted. Dr. Eugene Hagan was elected an associate member. The most interesting paper of the year was presented by Dr. M. Saklad, "Important Aspects of Anaesthesia." He explained the use of cyclopropane in anaesthesia, hypnotics in local anaesthesia, and the uses of helium gas in asthma attacks and in new born infants. The paper was enthusiastically received.

Announcement was made of the formation of the Caduceus Club in Pawtucket and limited to medical practitioners of Pawtucket only.

THAD A. KROLICKI,  
*Secretary.*

IMPORTANT NOTICE

The following letter from the Department of Commerce at Washington, D. C., has been received

by the Secretary of the Rhode Island Medical Society:

DEPARTMENT OF COMMERCE

BUREAU OF FOREIGN AND DOMESTIC COMMERCE  
WASHINGTON

March 1, 1936.

DR. J. W. LEECH, *Secretary,*  
Rhode Island Medical Society,  
167 Angell Street,  
Providence, Rhode Island.

Dear Doctor:

We are preparing to estimate the national income for the year 1935. In this connection we need estimates of the percentage change from 1934 to 1935 in the average net income of all physicians and surgeons engaged in private practice. We would greatly appreciate an expression of your opinion as to whether the average net income of all physicians and surgeons engaged in private practice in your State increased or decreased from 1934 to 1935, or whether it remained the same.

The returns to the questionnaire sent to physicians and surgeons covering the year 1934 showed that their average net income for the nation was slightly over \$3,500 for that year. This information may be of some assistance to you in arriving at your estimate of the percentage change which we are requesting.

We are sending this letter to you in duplicate, and you may check off your estimate on the diagram given below and return one copy to us as soon as possible. For your convenience in replying we are enclosing an official return envelope which requires no postage. Your reply will be confidential and we assure you that your opinion will be of material assistance to us.

CHANGE IN AVERAGE NET INCOME OF PHYSICIANS  
AND SURGEONS FROM 1934 TO 1935

	5%	10%	15%	20%	25%	No Change
Increase .....	.....	.....	.....	.....	.....	.....
Decrease .....	.....	.....	.....	.....	.....	.....

Very truly yours,  
WALTER L. SLIFER,  
*Economic Analyst,  
Division of Economic Research*

In the hope that publication and dissemination of the fact that physicians' incomes have suffered a marked decrease during the depression may have some effect toward stilling the clamor about the high costs of medical care, I urge the members of the Rhode Island Medical Society to send me anonymously a statement of the percentage of change in their income of 1935 as compared with that of 1934.

This information, anonymous and confidential, will be forwarded to the Department of Commerce.

Thanking you, I am

Yours truly,  
J. W. LEECH, M.D.,  
*Secretary*



## ANNOUNCEMENTS

### RHODE ISLAND COMMITTEE ON FRACTURES

The Rhode Island Committee of the New England Regional Committee on Fractures of the American College of Surgeons has been organized as follows: Dr. Roland Hammond, Chairman; Dr. Murray S. Danforth and Dr. Peter Pineo Chase representing the Rhode Island Hospital; Dr. William A. Horan, St. Joseph's Hospital; Dr. S. G. Lenzner, Miriam Hospital; Dr. Henry McCusker, Homeopathic Hospital; Dr. Herbert E. Harris, Memorial Hospital; Dr. G. G. Dupre, Woonsocket Hospital; Dr. William A. Stoops, Newport Hospital; Dr. John P. Jones, South County Hospital; and Dr. John W. Helfrich, Westerly Hospital.

The purpose of this committee is largely educational and practical, and it aims to bring new and adequate methods of fracture treatment to all doctors in the state who may be interested.

A Saturday clinic will be held early in April at the Boston City Hospital and Massachusetts General Hospital to which this committee will be invited and will be given a broad clinic on up-to-date methods of treatment of fractures.

### REPORT OF COMMITTEE OF THE BLOOD TRANSFUSION BUREAU

January 1, 1936

Blood Transfusion Bureau has now been in operation for ten months. A total of 46 transfusions have been arranged.

From the Charity Fund of \$2,000, \$135 has been disbursed in payment, in whole or in part, for ten transfusions.

Income from fees is \$62.50, Expenses were \$22.05, leaving a profit of \$40.45.

Respectfully submitted,

*For the Committee,*

(Signed) FRANCIS H. CHAFEE,  
*Chairman and Treasurer.*

### F. E. R. A.

REPORT

January 6, 1936

The arrangement for the care of the sick on relief was recognized as an emergency temporary measure. The rules and regulations to be followed were dictated by the Federal Emergency Relief Administration. With these regulations as a guide the committee formulated a plan by which services

were rendered at reduced fees. In the interest of expediency it was necessary to accept some arbitrary regulations.

The following figures indicate the scope of the work.

The Medical Unemployment Relief program began operating in March, 1934, and the first checks were sent out in May, 1934, to 60 physicians amounting to \$622.50. Up to December 1, 1935, a total of \$110,183.43 was paid to 316 physicians. The largest amount paid in any one month was \$9,242.50 to 169 physicians in February, 1935. The largest number of physicians doing this work in any one month was 186 in October, 1935.

ELIHU SAKLAD,  
*Secretary.*

## OBITUARY

DR. JAMES V. NIGRELLI

Dr. James V. Nigrelli died at the South County Hospital, August 10, 1935. The cause of death was pulmonary embolism, a terminal process in a streptococcic septicemia. He was born at Westerly, R. I., the son of Rosario and Domenica Nigrelli, on November 12, 1898. Educated in the public schools, he entered Cornell Medical School, leaving at the outbreak of the World War to join the U. S. Marines. At the close of the war he played professional baseball, basketball, and football for several years, earning a high reputation by his ability and good sportsmanship. In 1927 he resumed the study of medicine at Tufts, graduating in 1932. After an internship at the Rhode Island and Providence Lying-In Hospitals, he returned to Peace Dale to practice medicine, and at the time of his death he was Town Physician and a member of the staff of the South County Hospital.

His life was an unusually sad illustration of the frequent futility of human effort. A long preparation, an excellent training, a host of friends, a record for cleanness and ability, an engaging personality, a love for his work and a start that indicated that he was to go far; then an infection incurred in line of duty and a warm vital character snuffed out almost before his career had begun.

DR. H. B. POTTER  
DR. G. P. JONES

## COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

In giving thyroid extract after middle age, it is much safer to begin with small doses.

\* \* \*

*Early Diagnosis of Syphilis.* It is vital to detect syphilis before it becomes seropositive. The results of treatment are better and the cost of treatment to the patient is materially reduced. Special capillary tube outfits should always be on hand to collect serum from the suspected chancre, so that the specimen can be quickly transmitted to a laboratory for dark field studies.

\* \* \*

*Myxedema.* A basal metabolic rate as low as minus 40 may not be due to thyroid disturbance, according to Means and Lerman, *Arch. Int. Med.*, 1: 1, 1935. The authors give a chart showing that the zone of no symptoms of hypothyroidism is up to minus 20. From minus 20 to minus 30 is the zone of slight symptoms and from minus 30 to minus 50 is the zone of complete myxedema. While the diagnosis of myxedema should be easy, it is often missed. Of wrong diagnoses, anemia is first, Bright's disease, second; pelvic tumor (due to menorrhagia). (It is not uncommon to find that myxedematous patients are submitted to a hysterectomy when the menorrhagia is due myxedema. We must exercise care for these patients are sometimes bad operative risks—the ones who die on the table.—T.)

\* \* \*

*Streptococcic Food Poisoning.* Jordan and Burrows, *The Jour. of Infec. Dis.*, 3: 363, 1934, show that streptococci can cause food poisoning of the same general character as that caused by staphylococci. Cream pie was found infected with a green-producing streptococcus and tests of freshly isolated green-producing streptococci from other sources (one from an infected tooth and one from feces) also gave filtrates possessed of enterotoxic properties.

\* \* \*

*Spinal Fluid Sugar Determinations in Experimental Animals.* Davis and Brown, *J. Lab. and Clin. Med.*, 10: 1049, 1934, show that glucose injected intramuscularly during hypoglycemia, enters the spinal fluid very rapidly in the experimental animal. Intra-spinal glucose injections should be resorted to in the hypoglycemic diabetic who does not respond to intravenous glucose injections.

*Death Following Acute Bismuth Intoxication.* Cinani, *Dermosiflografo*, Torino, 10: 201: 1935. The author cites a case of death following bismuth administration. Most of the fatal cases are due to aggravation of affections that already existed and for this reason it is highly important to make a careful examination of the patient before giving bismuth. Most of the serious intoxications seem to have been caused by iodobismuthate of quinine. (Many keen observers find this preparation the best. Almost any drug may cause death, under the right conditions. In injecting bismuth, or any other drug deep into the muscles, it is necessary to make certain that a vein has not been punctured. If there is no blood withdrawn into the syringe it is safe to proceed. Heavy metals injected in veins may cause serious damage.—M. W. T.)

\* \* \*

*Nasal Ionization by a New Simplified Technic.* Cuttle, *Arch. Phys. Therapy*, 16: 405, 1935, gives a new method for the application of zinc ionization for allergic rhinitis.

\* \* \*

*Coronary Occlusion in Community Practice* Halbersleben, *N. E. J. of Med.*, 213: 403, 1935 concludes that diagnosis and treatment can in most cases be carried out satisfactorily in the home, relieving the burden on hospitals. The diagnosis can be made at the bedside with the aid of leucocyte counts at the physician's office. Other members of the family, or a nurse, can give closer attention to the patient than would be given in a hospital, unless special nurses are provided. (Portable apparatus will diagnose the condition very quickly and an experienced cardiologist will easily map out the course of treatment for the general practitioner.—M. W. T.)

\* \* \*

*X-ray Diagnosis of Chronic Appendicitis.* According to Scholz, *Am. Jour. Roent.*, 31: 813, 1934, the roentgen diagnosis of appendicitis is based upon one single sign—local tenderness on palpation over the visualized appendix region. All the other so-called roentgen signs are of no diagnostic value. Scholtz further states that practically every adult appendix shows microscopic and anatomical changes and these changes cannot be taken as a reliable criterion for the correctness of the diagnosis of chronic appendicitis.



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*Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241-245★  
*N. Y. State Jour. Med.* 1935, 35—No. 11,590  
*Laryngoscope* 1935 XLV, 149-154



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149-154. *Proc. Soc. Exp. Biol. and*  
*Med.*, 1934, 32, 241-245.

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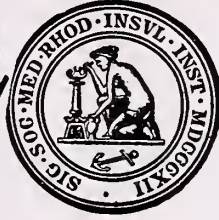
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MAY, 1936

The Rhode Island Medical Society's one hundred and twenty-fifth Annual Meeting,  
Providence, R. I., June 3, 4, 1936. The Medical Library, 106 Francis Street.

## CONTENTS

*This Issue Contains the*

### FISKE FUND PRIZE ESSAY, No. LXVIII APPENDICITIS

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Contents continued on page IV advertising section.

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\*Martenstein, H.: Syphilis Treatment: Enquiry in Five Countries, *League of Nations Quart. Bull. Health Organ*, 4: 129. 1935.



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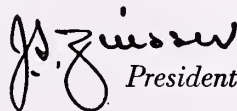
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## IV. BOTULISM

• Several of our readers have inquired as to the possibility of botulism resulting from the consumption of commercially canned foods. The canning industry is proud of the part it has played in the eradication from its products of this deadly type of food intoxication. We are glad to devote this space to a discussion of this important topic.

During recent years, the daily press periodically carries reports relating how one or more members of a family, or of a group of persons, were stricken after a meal, usually with fatal results. Sometimes these accounts describe how an "anti-toxin" was rushed to the scene—an indication that botulism was involved. These press reports often include the statement that a "canned food" was incriminated as the cause of the illness.

*We wish to emphasize that as far as the records go, these outbreaks without exception are not attributed to foods commercially canned in this country.* In practically every instance, it was found that the foods—usually of a non-acid or semi-acid nature—had been preserved at home by the use of inadequate heat sterilization processes (1). These press reports, by not stating correctly the type of food involved, have done much to cast unwarranted suspicion on commercially canned foods as possible causes of botulism.

Botulism, or acute toxemia due to *Clostridium botulinum*, is by no means a new affliction. As early as 1802—ninety-five years before van Ermengem discovered the true cause of the intoxication—warnings were issued against botulism. However, not until severe outbreaks occurred in this country some fifteen years ago, was it realized that cognizance should be taken of the fact that

foods canned by the methods used in those days could become contaminated with the toxin of this organism. This fact having been realized, the canning industry took immediate steps to prevent such contamination of their products.

Research was inaugurated and has been continued to which the industry has contributed not only financially, but also by the studies of scientists associated directly with the canning industry (2). The end result of these researches was the development of scientific methods of determination of heat sterilization treatments, or heat processes as they are known to the industry, which would be adequate to insure the safety of canned foods from the standpoint of botulism (3).

The effectiveness of the measures generally adopted by the canning industry of the United States is evidenced by the fact that no case of botulism attributable to an American commercially canned food has occurred during the past ten years (1a). Foods packed in commercial canneries are heat processed not only to insure protection from bacterial spoilage causing merely the loss of the food, but to render them safe from the standpoint of botulism, as well. In fact, a sterilizing process sufficient to insure the destruction of the most heat resistant strain of *Cl. botulinum* ever isolated is considered the minimum requirement of heat treatment of commercially canned foods. The National Canners Association has issued lists of scientifically determined processes for non-acid canned foods with which canners comply (4).

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1. a) 1935 Amer. J. Public Health, 25, 301  
b) 1935 J. Amer. Diet. Assn. 11, 18

2. 1936 J. Bacteriology 31, No. 1 P. 71  
1933 Amer. J. Public Health, 13, 108  
1922 J. Inf. Dis. 31, 6-9

3. 1929 Natl. Res. Council Bulletin, 7,  
No. 37

4. 1937 N.C. A. Bulletin 26-L,  
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Boiled Water . . . . .	20 ounces
Karo . . . . .	2 tablespoons

Lactic Acid Milk . . . . .	12 ounces
Boiled Water . . . . .	8 ounces
Karo . . . . .	2 tablespoons

## REFERENCES:

*Kugelmass, Clinical Nutrition in Infancy and Childhood, Lippincott.*  
*Marriott, Infant Nutrition, Mosby.*  
*McLean & Fales, Scientific Feeding in Infancy, Lea & Febiger.*

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The Official Organ of the Rhode Island Medical Society  
Issued Monthly under the direction of the Publication Committee

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NUMBER 5 }

PROVIDENCE, R. I., MAY, 1936

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## ORIGINAL ARTICLES

### THE DIAPHRAGMATIC RESPIRATION RECORDED BY A SYNCHRONOUS PNEUMOGRAPH\*

By ALBERT H. MILLER, M.D.

28 EVERETT AVENUE, PROVIDENCE, RHODE ISLAND

In 1754, the diaphragm was described as "a large, robust, musculous membrane or skin, placed transversely in the trunk, and dividing the thorax from the abdomen, whence the Latin writers call it *septum tranversum*. The uses of the diaphragm are: first, to assist in respiration, for in taking in the breath, it is pressed downwards, and in expiration, it rises upward into the cavity of the thorax; secondly, to assist the necessary motions of the contents of the abdomen, viz., of the stomach, intestines, liver, and spleen; and lastly, for assisting the expulsion of the faeces, the urine, the foetus in parturition, and of the secundines."<sup>5</sup>

The definition of 1754 is, in the main, accurate at the present time. The diaphragm is the principal muscle of respiration. It is attached to the inner surface of the six or seven lower ribs, to the ensiform in front and to the vertebral column behind. Its dome is supported by the mediastinum. By its contraction, not only is the vertical diameter of the thorax increased but its lateral expansion is widened in consequence of lifting the obliquely placed lower ribs. The nerve supply of the diaphragm is provided by the two phrenics and the autonomic phrenic plexus. It can be stated without great exaggeration that impulses which activate the reflex arc of which the diaphragm is the terminus may arise in any of the sensory nerve endings.

While the work of the diaphragm is not open for inspection, its movements are transmitted unmodified to the abdominal wall by the semi-solid and liquid abdominal contents. The terms abdominal breathing and diaphragmatic breathing may be used synonymously.

#### *The Synchronous Pneumograph*

The synchronous pneumograph is an instrument devised to register independently the diaphragmatic

and thoracic respiratory movements. The applicators constantly measure the circumference of the chest and of the abdomen and register the increase and diminution in these measurements which result from the respiratory movements. Each of the applicators consists of two measuring tapes, one rigid and inextensible, the other elastic and extensible. Comparative variations in the length of these measures show very exactly changes in the circumference of the object to which they are applied. For want of a better name, the applicators will be called stethometers or simply, meters. The upper meter encircles the chest at any point but preferably at the level of the ensiform. The lower meter is fastened about the abdomen preferably about four inches below the ensiform. Each meter is connected to a pen by a silk cord which moves freely within a flexible tube. The pens follow exactly the changes in circumference of the chest and abdomen. They are arranged to write on paper supported on a drum which is rotated by clockwork at a known rate of speed.

With this apparatus we can demonstrate the normal types of respiration and the respiratory response to reflex stimuli. Normal respiration is of the mixed type with inspiration produced by synchronous contractions of the diaphragm and the thoracic muscles. Normal expiration is entirely passive. The respiratory rhythm is constantly modified by emotional stimuli and influenced by muscular movements and the operation of body functions. In the anesthetized patient we can show the irregular respiratory movements of the excitement stage, the automatic respiration of early surgical anesthesia, the progressive paralysis of the thoracic muscles of respiration and of the pneumogastric nerves, and the gradually failing diaphragmatic movements which herald approach to the stage of danger.

#### *Respiration During Surgical Anesthesia*

In the patient anesthetized to the surgical stage, we encounter the following types of respiration:

Diaphragmatic or abdominal,  
Thoracic,  
Delayed thoracic,  
Reverse thoracic.

In the delayed thoracic type each thoracic inspira-

\*Read before the Providence Medical Association, April 6, 1936.

tion begins late in the respiratory cycle as indicated by the movements of the diaphragm. As thoracic paralysis increases, each thoracic inspiration begins a little later until finally a diaphragmatic inspiration occurs with no corresponding thoracic movement. As the thoracic muscles become still further paralyzed, the thoracic movements are reversed so that each diaphragmatic contraction is accompanied by retraction of the chest wall. This condition is called reverse thoracic respiration. These changes in thoracic respiration are noted by the anesthetist by resting the thenar eminence of the hand on the patient's shoulder, or any other fixed point as the shoulder rest used for the Trendelenburg posture, and following the movements of the chest under the anesthetist's fingers. They are exactly recorded by the synchronous pneumograph.

It was about twelve years ago that it was first noticed by the writer that the breathing of an anesthetized patient seemed to be entirely abdominal, with no movement of the chest. Checking this observation in a series of cases, it appeared that all patients who were deeply etherized breathed entirely with the diaphragm and that their thoracic muscles were completely paralyzed. This was reported as an observation of interest if not of practical importance.<sup>4</sup> McKesson checked a series of cases under nitrous oxide oxygen and found the thoracic respiration of these patients similarly paralyzed.<sup>3</sup> Waters suggested that the point where thoracic respiration ceased be used to indicate the beginning of Guedel's third zone of the surgical stage of anesthesia.<sup>6</sup>

#### *The Stages of Anesthesia*

Guedel, having rounded out his previous extensive experience by intensive work in anesthesia during the great war, had classified the signs of anesthesia and combined them to make a chart which is of great assistance to the understanding of the progressive stages of anesthesia and for their practical management.<sup>1</sup> Following the suggestion of Waters, Guedel reclassified his signs of anesthesia to make the beginning of the third zone coincident with paralysis of the thoracic muscles.<sup>2</sup>

Under this classification, anesthesia progresses through four stages: The first or stage of analgesia; the period of induction during which the special senses, the perception of pain, and consciousness progressively fail until they are lost. The second or stage of excitement; reflex activity stimulated with a tendency to incoordinate response. The third or surgical stage; unconsciousness with diminished re-

flex activity progressing through four zones. The fourth or stage of respiratory paralysis; central paralysis of respiration finally overcoming the circulatory function and ending in death.

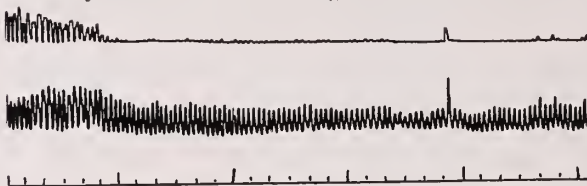


FIGURE I

Upper record, thoracic respiration. Lower record, abdominal respiration. Up stroke, inspiration. Down stroke, expiration. Timer marks ten seconds and minutes.

Transition from second to third zone of the surgical stage of anesthesia marked by paralysis of the thoracic muscles of respiration. Gradual narrowing of diaphragmatic movement tending toward fourth zone. Deep diaphragmatic inspiration with less thoracic movement indicates a sigh. It may occur under light or deep anesthesia.

#### *The Four Zones of the Surgical Stage of Anesthesia*

In the third or surgical stage, the first of the four zones is indicated by loss of the lid reflex. The respiration, which has been characterized by the incoordinate reflex response of the stage of excitement, becomes regular and machine like with increased amplitude and frequency. Inspiratory movements of the thorax equal or excel the movements of the diaphragm. Oculo-motor activity is indicated by rhythmic lateral oscillation of the eyeballs, by eccentric fixation of the eyeballs, or by sharp, irregular contractions of individual oculo-motor muscles.

The second of the zones of the surgical stage is noted on the cessation of oscillatory movements of the eyeball or of the other signs of oculo-motor activity. The rapid, automatic respiratory motions are at first carried on by thoracic muscles and diaphragm alike. As anesthesia deepens, the thoracic inspiration becomes more and more delayed until paralysis of the thoracic muscles indicates the beginning of the third zone.

The third zone of the surgical stage is characterized by complete paralysis of the thoracic muscles of respiration. The diaphragm takes up the work of respiration and carries it on as best it may. During anesthesia the diaphragm is often required to carry from ten to fifteen times its usual load. The thoracic muscles may become so flaccid that the chest wall retracts on inspiration, its framework sucked inwards by each contraction of the diaphragm. If the airway is allowed to become blocked, the collapse of the thorax on each attempted inspiration becomes even more evident.

The thoracic muscles of respiration receive their innervation from the twelve dorsal segments of the



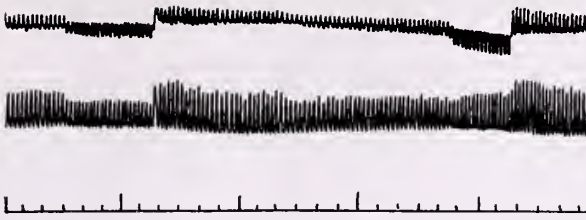


FIGURE II

Upper record, thoracic respiration. Lower record, abdominal respiration. Up stroke, inspiration. Down stroke, expiration. Timer marks ten seconds and minutes.

Third stage, second zone ether anesthesia. Twice, the artificial airway is removed and the tongue allowed to fall back with complete respiratory obstruction resulting. The thoracic respiration immediately assumes the reverse type. The diaphragmatic movements continue but the partially paralyzed thoracic muscles allow the chest to collapse on each diaphragmatic inspiration. Both abdominal and thoracic movements seem active but are entirely ineffectual for introduction of air into the lungs. On replacing the airway the thoracic respiration is restored and a period of compensatory hyperpnea follows. Complete respiratory obstruction in this zone of anesthesia produces no pause in the diaphragmatic respiratory rhythm. In conjunction with the Hering-Breuer reflex, this indicates complete paralysis of the pneumogastric nerve.

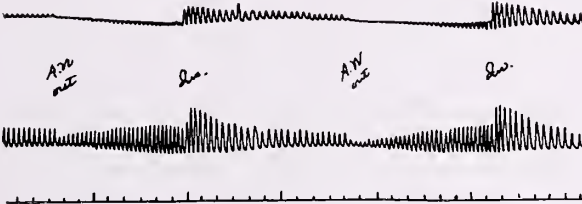


FIGURE III

Upper record, thoracic respiration. Lower record, abdominal respiration. Up stroke, inspiration. Down stroke, expiration. Timer marks ten seconds and minutes.

Recovery from ether anesthesia. Respiration slower. On removing the artificial airway and allowing respiratory obstruction to occur, there is a tendency toward a pause in the diaphragmatic movement, more marked in the second trial which was made three minutes later than the first. In conjunction with the Hering-Breuer reflex, this indicates progressive recovery of the function of the pneumogastric nerve.

The shallow thoracic respiration becomes reversed while the airway is blocked. When the respiratory obstruction is relieved by introduction of an artificial airway, a period of compensatory hyperpnea follows.

spinal cord. The phrenic nerves, coming from the fourth cervical segment, originate nearer the brain and higher nerve centers. These facts alone would tend to prove the presence of an ascending paralysis, but taken in conjunction with the early paralysis of the pneumogastric, which has its nucleus in the floor of the fourth ventricle, they prove that the paralysis caused by anesthetics is selective in its effect.

The fourth zone of the surgical stage is initiated by beginning paralysis of the diaphragmatic respiration. Thoracic paralysis persists and the chest continues to retract with each diaphragmatic inspiration. The paralysis of the diaphragm is pro-

gressive, the contractions becoming less frequent and less effectual. The respiration steadily fails in volume and in rate until finally it ceases entirely, indicating the beginning of the fourth stage—the beginning of the end.

The signs of these four subdivisions of the surgical stage of anesthesia are clearly marked: the first zone by loss of the lid reflex and initiation of automatic respiration; the second by signs of oculomotor paralysis; the third by paralysis of thoracic respiration; the fourth by beginning paralysis of the diaphragmatic respiration, progressive through this zone until complete cessation of respiratory movement indicates the end of the fourth zone and entry into the fourth and final stage of anesthesia.

### Conclusions

Paralysis of the thoracic muscles of respiration is the most valuable of the signs of anesthesia because it indicates the point in the surgical stage at which most serious operations can be most safely and efficiently performed.

For minor operations the first and second zones suffice. For most abdominal operations the point of transition from the second to the third zone is satisfactory. To secure freedom from reflex response to upper abdominal manipulations it is often necessary to push the anesthesia deeply into the third zone or even to the fourth zone. Although it is never advisable to disregard any sign or warning when administering an anesthetic, it is possible to maintain a light or deep anesthesia at a constant level by following the thoracic and diaphragmatic movements as recorded on the synchronous pneumograph. This has often been done for long operations in which it was required that the patient's head be covered and the face made inaccessible to the anesthetist. Aside from its practical application in anesthesia, the synchronous pneumograph opens a wide field for research on the physiology of respiration.

### REFERENCES

1. Guedel, Arthur E.: Third Stage Ether Anesthesia: A Sub-classification Regarding the Significance of the Position and Movements of the Eyeball. *American Journal of Surgery*, Anesthesia Supplement, April, 1920, p. 53.
2. Ibid.: Stages of Anesthesia and a Re-classification of the Signs of Anesthesia. *Current Researches*, August, 1927, VI, 4, p. 157.
3. McKesson, E. I.: Personal communication.
4. Miller, A. H.: Ascending Respiratory Paralysis under General Anesthesia. *The Journal A. M. A.*, Jan. 17, 1925, 84, p. 201.
5. Owen, W.: Dictionary of Arts and Sciences, II, p. 909, London, 1754.
6. Waters, Ralph M.: Ether Anesthesia: Relation of the Plane of Anesthesia to (1) Circulatory Depression and (2) Surgical Technique. *Current Researches*, Feb. 1926, V, 1, p. 41.

# THE RHODE ISLAND MEDICAL JOURNAL

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## RHODE ISLAND MEDICAL SOCIETY

Meets the first Thursday in September, December, March and June

ROLAND HAMMOND	<i>President</i>	Providence
JOHN E. DONLEY	<i>1st Vice-President</i>	Providence
WALTER C. ROCHELEAU	<i>2nd Vice-President</i>	Woonsocket
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Meets the second Thursday in each month

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GEORGE L. YOUNG	<i>Secretary</i>	East Greenwich

#### NEWPORT

Meets the second Thursday in each month

HORACE P. BECK	<i>President</i>	Newport
ALFRED M. TARTAGLINO	<i>Secretary</i>	Newport

**R. I. Ophthalmological and Otological Society**—2d Thursday—October, December, February, April and Annual at call of President. Dr. N. A. Bolotow, President; Dr. Gordon J. McCurdy, Secretary

**The R. I. Medico-Legal Society**—Last Thursday—January, April, June and October, Benjamin F. Tefft, M.D., President; Dr. Jacob S. Kelley, Secretary-Treasurer.

#### PAWTUCKET

Meets the third Thursday in each month excepting July and August

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THAD A. KROLICKI	<i>Secretary</i>	Pawtucket

#### PROVIDENCE

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HERMAN A. LAWSON	<i>Secretary</i>	Providence

#### WASHINGTON

Meets the second Wednesday in January, April, July and October

JOHN E. RUISE	<i>President</i>	Westerly
JOHN CHAMPLIN, JR.	<i>Secretary</i>	Westerly

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Meets the second Thursday in each month excepting July and August

HENRI GAUTHIER	<i>President</i>	Woonsocket
G. G. DUPRE	<i>Secretary</i>	Woonsocket

## EDITORIALS

### THE RECENT OUTBREAK OF POLIOMYELITIS

The advancement in the management of cases of infantile paralysis has been evident following the recent outbreak of this disease in the State.

One of the outstanding results is the more rapid recovery and the return to usefulness of the involved arm or leg and the prevention of contractions, as compared with conditions following epi-

demics of the past. The prophylactic or serum treatment has proven disappointing, both the Brody and Kolmer methods, it is generally agreed, need further study.

The employment of trained physiotherapists working under the instruction of the attending physician has resulted in much better work than followed the treatment of twenty years ago. These happy results have been most gratifying to patients and doctors and if a treatment of the early stages and prophylaxis could be established, one of the most destructive and feared communicable diseases will have been controlled.



## THE PROBLEM OF INFLUENZA

In the March 14th issue of the *Journal of the American Medical Association*, is an article on INFLUENZA. *Time*, the weekly newsmagazine, considered it newsworthy, sketched it briefly and accurately. How many of us missed it when the *Journal* was laid on our desk, to go back and reread it when efficient *Time* called it to our attention?

The article is the result of work done by three able young bacteriologists. They have concluded from this work that the virus of human influenza in widely separated areas appears to be a single immunologic entity. They found immune bodies to be present in the blood serum of convalescent Eskimos, and in the serum of about half the adult population of British and American cities. The authors feel that the pandemic of 1918 leaped the barrier from human to animal and now smoulders in the form of swine influenza, slightly modified.

Both active and passive immunization of susceptible animals against this virus have been affected. It is a careful, well written, and perhaps prophetic article. Medical men who did not see the ravages of the disease during the pandemic cannot conceive the dreadful havoc wrought. Does this article point at last, the road to eventual control of one of mankind's scourges, outranking wars in its death toll? The footnotes of this article promise further papers. We look forward to more such readable, important reports.

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## LOOK AND SEE

At intervals the RHODE ISLAND MEDICAL JOURNAL has called attention to the dangers to the public and to the medical profession of socialized medicine. The JOURNAL still feels the profession has not fully acquainted itself with these dangers and therefore is not prepared to inform the public intelligently about them.

The Providence Medical Society has secured a large number of copies of the various publications of the American Medical Association on the subject and has supplied most of its members with these pamphlets. A few are left for distribution.

It is not enough, however, to give out reading matter. The important thing for every member of the medical organizations is to read the literature supplied. If the laity is to be given information and

## THE JOURNAL'S COLUMN

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To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

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## AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

"Letters to the Editor" are considered to be the personal expression of the writer's opinion upon the subject of which he writes.

The RHODE ISLAND MEDICAL JOURNAL disclaims any responsibility for these opinions and is not to be held accountable for any sentiment therein expressed or implied.

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through them the law-makers of both state and nation, the informants must prepare themselves. Read the literature!

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## OUR PERENNIAL NUISANCE

Again the thought of the noisome Providence River and its tributaries appears in the daily papers, from which we may conclude that these problems are still unsolved. Some forty years ago a writer suggested that a boatman armed with a pole make a crude investigation by proceeding up these streams and, by thrusting the pole down into the mud, learn something of the cause of the nuisance, well known to many visitors to this fine city. At that time the writer was urged to appear before the then State Board of Health to demonstrate his views



and suspicions but, seeking to avoid trouble, rather than to seek it, he declined with many thanks. What has been done since we do not know and there seems to be no way to find out. But we venture to say that despite the cleaning out and scouring that may have been occasioned by the unusual flood condition which have recently prevailed it may be quite possible that the coming hot weather will still reveal a sluggish, dirty stream in the midst of a fair city in which frequent bubbles of ill smelling gas will occasionally come to the surface of the slowly moving waters, burst and discharge their contents into the atmospheric air.

Again it was not long ago that a circular letter was sent to members of the medical profession asking if they had ever noticed the odors of gasoline distillation in the air and the writer offered to conduct the authorities to the very spot from which these odors proceeded. No reply was received from this polite and very definite offer. The time has now arrived when we shall be obliged to keep our windows open and unless matters have changed within a very short time we shall again be able to note most disagreeable odors from the oil distilleries which constitute a distinct offense and a nuisance.

The intervention of the medical profession in these matters is a distinct duty. The remedy of these matters should present no considerable engineering difficulties. They have precipitated no epidemics: comfort rather than life is disturbed, but we physicians have not only to deal with hysterectomies, abdominal sections and other valuable considerations, but we should throw the weight of our influence to every cause which affects not only the public health but its well being.

Fresh sewage is a clean crystalline and beautiful thing compared with the waters of the Providence River, and the out house of our forefathers is considered by many to be far more bearable than the odors in which we often try to sleep throughout the night. Perhaps some scientific investigators will find out for us if there is some connection between these things and prevalent sore throats, bronchitis and the inadequate ventilation which these nuisances impose upon us.

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## BOOK REVIEWS

**SYNOPSIS OF CLINICAL LABORATORY METHODS.** By W. E. Bray, Professor of Clinical Pathology, University of Virginia. C. V. Mosby Co., St. Louis, Publishers, 1936.

"The object of this synopsis is to bring together in a small volume for ready reference the more recent information and the most frequently used methods of laboratory diagnosis" — author's preface.

The author covers the fields of urinalysis, hematology, blood chemistry, gastric analysis, feces and intestinal parasites, puncture and cerebrospinal fluid examination, sputum, general bacteriology, serology, rather exhaustively for the size of the book and has given the essentials of water and milk examination, basal metabolism tests, allergy tests, poisons and foreign substances, and surgical pathology in other chapters. The last chapter gives stain formulae, directions for making solutions, removal of stains and tables of normals, atomic weights and equivalents.

Clear and concise directions are given for each procedure, and in many cases improvements are incorporated in the original methods.

The book is up-to-date as evidenced by inclusion of such recent developments as the one hour two-dose dextrose tolerance test, sternal marrow examination, Neufeld pneumococcus typing, Kline slide test for syphilis, Wassermann test interpretation according to the 1935 survey, and Dioxan as a dehydrating reagent in histological preparations.

The index is complete but not cumbersome, the section on poisons is a welcome addition, and there is sufficient interpretation of results given to suggest applications and aid in evaluating results.

As a whole the book is a valuable contribution to laboratory science.

W. E. B.

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**MARTINI'S PRINCIPLES AND PRACTICE OF PHYSICAL DIAGNOSIS.** Edited by Robert F. Loeb, M.D. From authorized translation by George J. Farber, M.D. Published by J. B. Lippincott Co.

The subject of physical diagnosis is rationally and logically presented in this translation of Professor Paul Martini's text.

The book is devoted to the technique of examining the patient by the four cardinal methods—inspection, palpation, percussion and auscultation. The book is short yet complete. There are four chapters; one devoted to observation of the patient, one to the respiratory tract, one to the circulatory system and one to the examination of the abdominal organs.

There is a brief review of the anatomy and physiology of the respiratory and circulatory systems. A few simple physical principles are explained which make the findings derived from percussion and auscultation simple and logical.

The approach and manner of presenting the various subjects are different, clear and altogether instructive. Although primarily for the student, the book helps the practicing physician to better evaluate his physical findings.

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Hughes: Practice of Medicine, Gordon. 15th Edition. Blackiston. Is a book written chiefly for the practitioner of general medicine. It covers about the entire field of medical diseases. The material has been arranged concisely and systematically, which makes the book particularly attractive to the busy doctor.

Considerable space is devoted to symptomatology and pathology. The subject matter has been revised and brought up to date.

The English is excellent as is the print.

Recommended especially for diagnostic work.

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## SOCIETIES

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### RHODE ISLAND MEDICAL SOCIETY

The regular quarterly meeting of the Rhode Island Medical Society was held Thursday, March 5, 1936, at the R. I. Medical Library Building, and was called to order by the President, Dr. Roland Hammond, at 4 P. M.

The minutes of the February meeting of the Council, and of the House of Delegates, were read by the Secretary and approved.

The President announced the death of: Dr. Franklin P. Capron, who died Dec. 16, 1935, and Dr. R. Herbert Carver, who died Dec. 30, 1935, and referred the matter to the Committee on Necrology for a report at the annual meeting.

The following program was presented:

1. "Treatment of Fracture of the Neck of the Femur," William A. Horan. Discussion by E. S. Cameron.

2. "Peroral Endoscopy as an Aid in the Diagnosis of Diseases of the Bronchi and Oesophagus,"

Linley C. Happ. Discussion by Gordon McCurdy, J. M. Beardsley, John Langdon, L. C. Happ.

3. Motion Picture Film, "Modern Methods of Anesthesia." This film, prepared and furnished by the Winthrop Chemical Co., was projected by Dr. Meyer Saklad. The film showed the preparation and administration of Avertin and of Evipal, and also showed the technique of spinal anesthesia by novocain.

After adjournment a collation was served.

Respectfully submitted,

J. W. LEECH, *Secretary*

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### SPECIAL MEETING—HOUSE OF DELEGATES

March 20, 1936.

A special meeting of the House of Delegates was held March 20, 1936, at the Medical Library.

The following resolution was read by the secretary:

"Resolved, That whereas there is recognized a real need for measures looking to the recognition and control of tuberculosis and to the advancement of mental hygiene throughout the state; and

Whereas, The installation of clinics and surveys to accomplish these purposes at the request of hospitals, clinics and lay organizations is often accompanied by requests that the Public Welfare Commission of the State of Rhode Island use its facilities and personnel for the above purposes,

Be it Resolved, That the Rhode Island Medical Society approves the installation of clinics and surveys for the above purposes where they are safeguarded by the following provisions:

1. Requests for clinics and surveys for the control of tuberculosis and advancement of mental hygiene should come through hospitals, clinics or medical members of lay groups.

2. The personnel of the departments of Public Welfare Commission shall act only in an advisory and consultative capacity.

3. Reports of these activities of said departments of Public Welfare Commission, dealing as they do with medical problems, shall be rendered to the appropriate physician or physicians requesting the installation, and not to lay representatives of the organization requesting the technical services of said departments of Public Welfare Commission."

The President, Dr. Roland Hammond, explained that the above resolution was inspired by the situation which had arisen in connection with a proposed survey of high school pupils in East Providence by the Rhode Island Anti-Tuberculosis Association. This organization proposed to conduct such a survey by making use of the clinical personnel of the R. I. State Sanatorium at Wallum Lake. The Public Welfare Commission called a conference of the President, and Secretary of the R. I. Medical Society, the President of the Providence Medical Association, Dr. V. H. Danford, superintendent of the Wallum Lake Sanatorium, and Mr. Chandler, Executive Secretary of the R. I. Anti-Tuberculosis Association. It was found that the survey had been instituted without the knowledge of, or reference to the school physicians of East Providence. It was found impossible for the personnel of the State Sanatorium to devote the time necessary for the actual X-ray examination of the 600 children, and it was felt that the activities of the medical staff of the State Sanatorium in his survey could not include more than the reading of the X-ray films, and the issuance of reports thereon.

It was moved and seconded that the resolution be adopted. It was so voted.

The President pointed out the duty of the medical profession in bringing to the notice of the public the dangers of socialized medicine. He pointed out that other State Medical Societies had organized groups of speakers to address the civic clubs, such as the Rotary, Kiwanis, Lions, Parent-Teacher's organizations, etc., in order to bring to the public a knowledge of socialized medicine.

It was moved and seconded that the President be empowered to appoint a committee of five to arrange for speakers to address such lay organizations in regard to socialized medicine. It was so voted.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., *Sec'y.*

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#### PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the president, Dr. William S. Streker, on Monday evening, March 2, 1936, at 8:45 P. M. The minutes of the last meeting were read and accepted. The

secretary read a letter from the postmaster of Providence calling attention to medical and surgical equipment for sale by the Post Office Department.

The President announced a request from the Red Cross Society that a Medical Sub-committee of the Red Cross Disaster Committee be appointed to act in time of disaster.

The first paper of the evening was read by Dr. J. Murray Beardsley, and was entitled "Bronchiectasis." It was based on a study of 40 cases observed over a period from one to twelve years. The diagnosis was proven in each case by injection with lipiodol. The condition may be congenital or acquired. Infection and pressure act as causative factors. There may be sacculated or tubular types or mixed types. In the 40 patients studied there were eight cases of the mixed type and 16 cases of each of the other two types. There were 24 males and 16 females. The majority of the cases were in the second and third decades, there being 12 patients in each of these two age groups. There are no distinctive symptoms or signs. Lipiodol injection is the most important and useful diagnostic aid. Routine X-rays without lipiodol injection are of very little help. Of the 40 cases studied five had been in tuberculosis sanatoria but had had persistently negative sputa. No bacteriological studies were made. Dr. Beardsley concluded by showing lantern slides of X-ray pictures illustrating types of bronchiectasis and showing results of treatment particularly by use of pneumothorax.

The next paper was read by Dr. John T. Farrell, Jr., of Philadelphia and was entitled "The Roentgenologic Differential Diagnosis of Non-Tuberculous Diseases of the Lungs." Dr. Farrell began by pointing out that the diagnosis of tuberculosis is too frequently made in patients who have later been proven to have non-tuberculous disease of the lungs.

The speaker then discussed the mechanisms by which changes in the X-ray appearance of the lungs may be produced, and illustrated his talk throughout by lantern slides showing many examples of the various disorders produced. Such changes may be due to (1) infection by bacteria; (2) to bacterial infection plus obstruction; (3) or to mechanical obstructive lesions without infection.

Dr. Farrell spoke briefly of the physiology of normal respiration and discussed the types of bronchial occlusion produced by foreign bodies,



tumors, etc., and showed X-ray pictures illustrating types of changes produced in the lungs in various conditions. He continued with a discussion appearance metastatic or secondary tumors of the lungs in which the nodules are usually sharply circumscribed and scattered diffusely throughout the lung. He concluded with a discussion of results of trauma and pressure from extra-bronchial lesions.

The papers were discussed by Drs. Happ, Boyd, Caron, J. G. Kelley, Ham, William McLaughlin, F. B. Cutts and McCurdy.

The meeting adjourned at 10:50 P. M. Collation was served.

Respectfully submitted,

HERMAN A. LAWSON,

*Secretary.*

#### PAWTUCKET MEDICAL ASSOCIATION

March 19, 1936.

The annual meeting and banquet of the Pawtucket Medical Association was held on March 19, 1936, at the Slater Hotel in Pawtucket, R. I., at 7:30 P. M.

Forty members and ten guests attended. The guests were Dr. Wm. Streker, president of the Providence Medical Society; Dr. R. Hammond, president of the Rhode Island Medical Association; Dr. B. Campbell Beard, professor of political economics at Brown University; Drs. K. Barr, Greenstein, Jones, Eddy, Lalonde, Shaw, and Hussey. Dr. James L. Wheaton served as toastmaster. Dr. B. Campbell Beard was the chief speaker of the evening and gave a very interesting talk on the "Present European Situation." Dr. Wheaton presented Dr. George Howe, who has attended every annual banquet since 1905.

The regular business meeting was called to order at 9:30 P. M. by Dr. Dufresne, the president. Reports of the officers and various committees were presented and accepted. Dr. Barnes was elected unanimously a regular member.

Officers for the following year were elected: President, Dr. W. J. Dufresne; vice president, Dr. E. A. Cormier; secretary, Dr. T. A. Krolicki; treasurer, Dr. B. U. Richards; delegates to Rhode Island Medical Society, Dr. C. L. Farrell, Dr. G. R. Fox, Dr. S. Sprague, Dr. R. T. Henry; library committee, Dr. G. Howe, Dr. E. Mathewson, Dr.

J. B. Marshall; standing committee, Dr. E. Kelly; councillor, Dr. C. Holt.

Other routine and new business was transacted. Meeting adjourned at 12:30 A. M.

THAD. A. KROLICKI, M.D.,

*Secretary.*

#### SPECIAL STATEMENT

Physicians interested in a public health career and desiring the opportunity to train for such a career may apply to Dr. Edward A. McLaughlin, Room 319, State Office Building, Providence, Rhode Island.

In accordance with provisions of the Social Security Act, scholarships are to be issued through the State Departments of Public Health for this purpose.

Physicians interested in this opportunity should address all communications to Edward A. McLaughlin, M.D., Room 319, State Office Building, Providence, Rhode Island.

#### ANNOUNCEMENTS

Dr. William P. Buffum announces that in addition to his general pediatric practice, he will give especial attention to problems of allergy and asthma in childhood.

Dr. Francis L. Burns announces the opening of his office at 568 Broad Street, Providence, for the practice of diseases of ear, nose and throat.

#### POLYPOSIS OF COLON

George E. W. Hardy, Tampa, Fla. (*Journal A. M. A.*), cites a case in which it is problematic whether the polyposis resulted from a bacillary dysentery or whether the dysentery was merely a complicating factor, secondary to the congenital type of polyposis of the colon. The author is of the opinion that this case was one of polyposis of the colon of the congenital disseminated type, complicated by a bacillary dysentery that confused the picture and postponed the correct diagnosis until too late for relief to be given. The pathologic specimen that confirmed the preoperative diagnosis, made possible by the roentgen study and corroborated the surgical observations, is shown.

# COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

*Classification of Nephritis.* This is used in the United States Naval Medical School.

Glomerulonephritis	{ acute subacute chronic
Nephrosis	{ amyloid toxic chemical lipoid
Arteriosclerosis	{ A. Without renal insufficiency 1. cerebral symptoms 2. cardiac symptoms B. With renal insufficiency
	* * *

*Toxemias of Pregnancy.* Strauss, Am. J. M. Sc., 765:811, 1935, believes that a manifestation of toxemia of pregnancy is water retention. This water retention probably occurs as a result, among other factors, of a lowered osmotic pressure of the plasma proteins, usually in the presence of an increased venous pressure. Results suggest that a restricted dietary intake of protein in pregnancy is harmful, and that no injurious consequences follow the administration of high-protein diets to women with toxemia of pregnancy. The beneficial results observed in these patients may well have been due to the large protein intake and to the parental administration of accessory nutritional factors. (The common prescription of "no red meats" to blood pressure and kidney patients probably does more harm than cathartics given for abdominal pain. And many patients, fearing disease, have self-inflicted low protein diets, thus often causing considerable harm.—M. W. T.)

\* \* \*

If the lead and arsenic content of vegetables and fruits is not reduced, we may see many more cases of chronic nephritis. There are very few foods free from these chemicals.

\* \* \*

The U. S. Supreme Court has decided that the child labor amendment is unconstitutional, so now children can return to "sweat shops." To be sure the law was badly drafted, but it is unfortunate that these youngsters can now be exploited as they were in the past.

\* \* \*

*Chest Belt for Fractured Rib.* Roland Hammond, J. of Bone and Joint Surgery, 17:233-34, Jan. 1935, gives a new method of strapping the chest for fractured ribs. (A relief to be able to dispense with adhesive plaster.—M. W. T.)

The medical advice given by some manufacturers over the radio is an insult to human intelligence. Is there no way the public can be protected against such advice as is given in newspaper advertisements and on the air? Will we ever have a food and drug act which really will prevent us from having lead and arsenic foods, adulterated and decomposed food products and fake medicines?

\* \* \*

*X-ray Diagnosis of Chronic Appendicitis.* According to Scholz, Am. J. Roent., 31:813, 1934, the roentgen diagnosis of appendicitis is based upon one single sign—local tenderness on palpation over the visualized appendix region. All the other so-called roentgen signs are of no diagnostic value. Scholz further states that practically every adult appendix shows microscopic anatomical changes.

\* \* \*

*Pneumococcus Typing.* There is a simple procedure for typing pneumococci. It could easily be done in the office.

\* \* \*

*Occult Spina Bifida and Nocturnal Incontinence of Urine.* Peritz, quoted by Berri, LaSemana Medica, shows the frequent association of these two conditions. (68% in adults and 55% in children.)

\* \* \*

*Ultra Short Wave Therapy.* This is one of the newer physiotherapeutic methods and at the moment it is difficult to evaluate it. No doubt it works very well in chronic infections, but each condition requires a different wave length. The fact that the manufacturers are changing the apparatus so frequently is proof that there is still considerable work to be done.

\* \* \*

*The Treatment of Gonorrheal Arthritis by Means of Systemic and Additional Focal Heating.* Bierman and Levenson, Am. J. Med. Sc., 191:55, Jan. 1936, use a combined method of water bath at a temperature of 100°-102° F. gradually raised to 107°-108° F. within an hour. A hood containing 60-watt electric light bulbs was used. Locally diathermy was administered.

\* \* \*

The J. A. M. A., 106:71, Jan. 4, 1936, describes spectacles for those who are forced to be recumbent. It is suggested that hospitals may rent these to patients. (Why not rent radios, too?)

FISKE FUND PRIZE ESSAY, NO. LXVIII

APPENDICITIS  
DIAGNOSIS, TREATMENT AND  
END RESULTS

CHARLES O. COOKE, M.D. *and* J. MURRAY BEARDSLEY, M.D.

PROVIDENCE, RHODE ISLAND

*"Endless is the search for truth."*—STERNE



THE Trustees of the Fiske Fund, at the Annual Meeting of the Rhode Island Medical Society held at Providence, June 7, 1934, announced that they had awarded a premium of two hundred dollars to Charles O. Cooke, M.D. and J. Murray Beardsley, M.D., of Providence, Rhode Island, for an Essay entitled "Appendicitis; Diagnosis, Treatment and End Results."

CHARLES S. CHRISTIE, M.D.

ALBERT H. MILLER, M.D.

ROLAND HAMMOND, M.D.

*Trustees*

WILFRED PICKLES, M.D.

*Secretary to the Trustees*

184 Waterman Street, Providence, R. I.

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# APPENDICITIS

## DIAGNOSIS, TREATMENT AND END RESULTS

APPENDICITIS is the most common disease of the abdomen. It is estimated that it is responsible for about 25,000 to 30,000 deaths annually in the United States. Considerable interest has been focused upon this subject in the past few years due chiefly to the rise in the death-rate from this disease as represented by U. S. Mortality Statistics. Consequently the literature which has appeared on this subject in the past decade has been voluminous. Boland<sup>1</sup> states, "In the five year period, 1916 to 1920, 512 articles on appendicitis appeared in the world's literature, 209 of which dealt with acute appendicitis. From 1921 to 1925, 836 papers on the disease were printed, 308 of which concerned the acute variety. From 1926 to 1930, 1,755 papers were published, acute appendicitis being discussed in 533." According to the Quarterly Cumulative Index Medicus 251 articles on appendicitis were written in 1933.

Table I leaves no doubt in the minds of the writers as to the increase of deaths from appendicitis (and typhlitis) during the twenty year period, 1913 to 1932. In the U. S. Death Registration Area the rate increased from 12.1 in 1913 to 15.2 in 1931. Similarly, in Rhode Island, it increased from 12.3 in 1913 to 14.5 in 1931 and to 15.3 in 1932. Figure 1 pictures graphically what is also shown in Table I—that the rates for Rhode Island were somewhat lower than for the United States as a whole for more than one-half of the years in the period reviewed. The year 1924, however, showed an unusually high rate for Rhode Island—19.1.

Conclusions reached in this paper are the result of an examination of 2,405 case records at the Rhode Island Hospital. Those cases in which the appendix was removed during the course of other abdominal operations, and those in which no operation was performed, are not included. Of the cases reviewed, 1,934 were selected for study, 1,136 being of the acute variety, 693 chronic, 48 sub-acute, and 40 were cases of oxyuriasis, 23 of which were associated with chronic appendicitis. This represented all the cases operated upon for appendicitis at the Rhode Island Hospital for the five year period, 1928 to 1932, inclusive. These operations

TABLE I  
DEATH-RATES FROM APPENDICITIS  
AND TYPHLITIS  
*Death-Registration Area in Continental U. S.  
and Rhode Island*

Year	Rate per 100,000	
	United States	Rhode Island
(1)	(2)	(3)
1913	12.1	12.3
1914	12.3	12.1
1915	12.5	10.8
1916	12.8	13.6
1917	12.6	13.6
1918	12.2	9.4
1919	11.8	10.8
1920	13.4	12.2
1921	14.4	12.3
1922	14.1	15.0
1923	14.7	11.0
1924	14.8	19.1
1925	15.2	13.0
1926	15.0	14.9
1927	15.0	13.4
1928	15.3	13.7
1929	15.2	15.9
1930	15.3	15.7
1931	15.2	14.5
1932		15.3

Note: Bibliography 2 and 3

were performed on the surgical services of the hospital by twenty visiting surgeons and forty house officers, a few private cases from other services also being included. In the operations performed by the house officers, a visiting surgeon was always present at the operation.

### CHRONIC APPENDICITIS

It will be seen from Table II that the incidence from chronic appendicitis is highest in the adult female group, representing 64.9 per cent. This is in contrast to the distribution in the acute group where males predominated and corresponds quite closely with other studies which include a large series of cases. Some of these cases were operated upon with a diagnosis of acute appendicitis but the pathological examination revealed a chronic process. The large majority gave no history of a previous acute attack. Also, a large number in which the diagnosis was made microscopically, showed no gross evi-

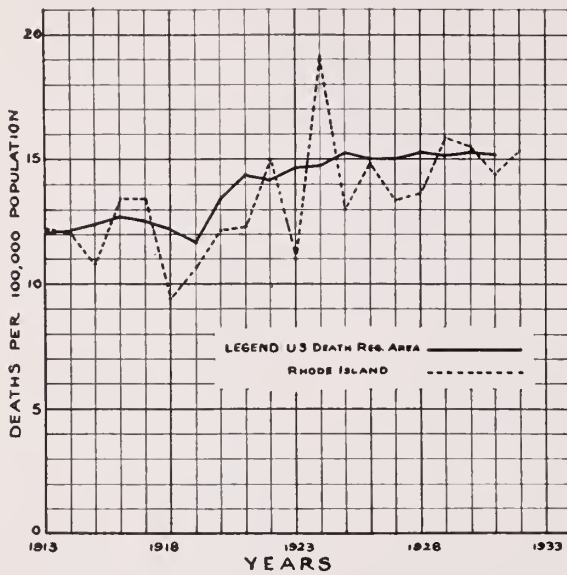


FIGURE 1. Death-rates from Appendicitis and Typhlitis U. S. Death Reg. Area and Rhode Island, 1913-1932

dence of pathology at the time of operation. The question of chronic appendicitis is still a debatable one and it is probable that with more refined diagnosis, fewer operations will be performed for this type of disease.

TABLE II  
CHRONIC APPENDICITIS

Year	Children under 13 years	Males 13 years and over	Females 13 years and over	Total	With Path. Diag.	No Path. Diag.
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1928	2	30	65	97	66	31
1929	7	43	105	155	112	43
1930	8	35	82	125	108	17
1931	16	30	67	113	95	18
1932	19	53	131	203	159	44
Total	52	191	450	693	540	153
Per cent	7.5	27.6	64.9	100.	77.9	22.1

Four cases not included in the series but in which the preoperative diagnosis was chronic appendicitis are mentioned as a matter of interest. These were two cases of carcinoid of the appendix, one case of adenocarcinoma of the appendix, and one case of tuberculosis of the appendix.

There were 40 cases of appendiceal oxyuriasis, 23 of which were associated with chronic appendicitis. 62.5 per cent occurred in females. This subject is of interest because the symptoms closely simulate those of acute appendicitis in many instances. Gordon<sup>4</sup> believes that the incidence is increasing. He found 1.19 per cent in his series of 26,051 appendices removed. In our series in which 1,902

appendices were removed (32 were not removed) 2.1 per cent showed oxyuriasis.

TABLE III  
OXYURIASIS

Year	Chronic Appendicitis with Oxyuriasis		Normal Appendicitis with Oxyuriasis		Total Oxyuriasis	
	Male	Female	Male	Female	Male	Female
1928	1	...	...	...	1	...
1929	...	...	1	...	...	1
1930	2	5	...	...	2	5
1931	3	1	...	...	3	1
1932	4	7	5	11	9	18
	10	13	5	12	15	25
Total	23		17		40	

#### SUBACUTE APPENDICITIS

The diagnosis of subacute appendicitis was made in 65 cases although only 13 of these were confirmed by a pathological examination. 60 per cent occurred in females. The preoperative diagnosis in practically all of these cases was acute appendicitis.

TABLE IV  
SUBACUTE APPENDICITIS

Year	Male	Female	Total	Path. Diag.	No Path. Diag.
(1)	(2)	(3)	(4)	(5)	(6)
1928	3	16	19	3	16
1929	5	5	10	3	7
1930	8	6	14	1	13
1931	5	6	11	6	5
1932	5	6	11	...	11
Total	26	39	65	13	52
Per cent	40.	60.	100.	20.	80.

#### ACUTE APPENDICITIS Diagnosis

The diagnosis of acute appendicitis in a typical case is not difficult. The history, physical signs and laboratory findings encountered are familiar to all physicians with ordinary training and experience. Unfortunately, a certain per cent of cases do not present the typical picture and it is here, chiefly, that errors in diagnosis occur with a resulting delay of operation, unfortunate complications and unfavorable end results. Bower<sup>5</sup> finds that pain is the only constant symptom, tenderness the only physical sign usually present (in 89 per cent of cases), and that the leucocyte count is the only corroborative test (present in 80 per cent of cases).

Wilkie<sup>6</sup> believes that there are two types of acute appendicitis: (1) inflammation of the wall of the

appendix which may be blood borne and follow acute tonsillitis or other infections; (2) acute appendicular obstruction which is due to a sudden and complete obstruction of the appendix. This leads to tension gangrene in from six to twenty-four hours, followed by perforation and the escape of fecal contents into the peritoneal cavity. It is frequently difficult, therefore, though extremely important to make an early diagnosis in this variety of acute appendicitis. The pain is usually severe and colicky in character, the temperature as a rule is not elevated, and tenderness and spasm are not marked in the early hours of the disease. The leucocyte count is usually elevated. Clute<sup>7</sup> and others agree with Wilkie's observations and have published results confirming them.

We have attempted to concentrate our attention upon those factors in diagnosis which have appeared to us to be of most importance in influencing the end results. Perhaps the two which should be especially mentioned are: (1) delay in diagnosis as represented by the number of hours ill before operation was performed; (2) failure of diagnosis as evidenced by the administration of cathartics. It was estimated that the usual symptoms of pain, nausea or vomiting, and the physical signs of tenderness and spasm, and elevation of pulse and

temperature were present in about 80 per cent of our cases. But it was felt that no useful purpose would be accomplished by recording in detail these data which are well known to all those familiar with this disease.

### Sex

That acute appendicitis is more common in males than in females is a fact noted by many observers. Walker's<sup>8</sup> early series (1907-10) showed 63 per cent males, and the later series (1927-30) 60.8 per cent males. Boland, Finney<sup>9</sup> and others all show a preponderance of males. The 61 per cent of males in this series as represented in Table V would appear to be an average sex distribution, with no wide variation by years.

TABLE V  
ACUTE APPENDICITIS  
*Incidence according to Sex*

Year	Male		Female		Total
	No.	Per cent	No.	Per cent	
1928.....	111	57.8	81	42.2	192
1929.....	107	58.5	76	41.5	183
1930.....	146	61.6	91	38.4	237
1931.....	144	65.2	77	34.8	221
1932.....	185	61.1	118	38.9	303
Total.....	693	61.0	443	39.0	1,136

TABLE VI  
ACUTE APPENDICITIS  
*Incidence according to Age*

Year	Age-group										N. S.	Total
	0-5	6-10	11-15	16-20	21-30	31-40	41-50	51-60	61-70	71-		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1928.....	9	26	44	43	27	16	13	5	6	1	2	192
1929.....	7	28	40	35	32	17	17	4	3	0	...	183
1930.....	14	33	47	45	42	24	19	7	5	1	...	237
1931.....	15	43	41	43	31	18	17	10	2	1	...	221
1932.....	11	37	60	63	66	30	19	10	6	1	...	303
Total.....	56	167	232	229	198	105	85	36	22	4	2	1,136
Per cent.....	4.9	14.7	20.4	20.2	17.4	9.2	7.5	3.2	1.9	0.4	0.2	100.

### Age

Table VI finds 40.6 per cent of all cases falling in the second decade, the next highest incidences occurring in the first and third decades respectively. This corroborates the findings of most observers that acute appendicitis is a disease of early life with the peak in this series falling in the 11 to 15 year age-group. After the second decade the incidence declines in direct proportion to the advance in years.

### Hours Ill Before Operation

Table VII illustrates the duration of attack before operation was performed. It will be seen that 55.2 per cent were admitted after 24 hours of illness. Of the 16.8 per cent that were admitted within the first twelve hours, only 3.3 per cent entered the hospital within the first six hours. There is definite improvement in early admissions during the later years, 13.0 per cent in 1928 being



admitted before twelve hours as contrasted with 23.4 per cent in 1932. In 1928, 14.1 per cent of cases were operated after four days of illness while in 1932 only 3.7 per cent were admitted at this late date.

TABLE VII  
ACUTE APPENDICITIS  
*Hours Ill before Operation*

Year	Per cent of cases					
	0-12 hours	13-24 hours	25-48 hours	49-96 hours	97- hours	Hours N. S.
1928	13.0	22.9	39.6	9.9	14.1	0.5
1929	12.0	25.1	42.1	9.3	10.9	0.6
1930	16.9	28.3	37.9	7.2	9.3	0.4
1931	14.9	30.3	43.5	6.8	4.5	.....
1932	23.4	31.0	34.3	6.3	3.7	1.3
Total	16.8	28.0	39.0	7.7	7.9	0.6

*Cathartics*

In 19.4 per cent of 1,136 cases of acute appendicitis it was specifically stated that patients received

cathartics, although it is very probable that many more were received than were actually recorded. The laxatives most commonly used were:

- salts
- castor oil
- castoria
- cas cara pills
- senna leaves
- ex-lax

In this series the number of laxatives given during the two latter years was less than in the first three years, and it is to be hoped that this is an indication that the laity are becoming more aware of the danger of laxatives in acute abdominal conditions. Table VIII shows very clearly the unfavorable influence of catharsis in acute appendicitis as represented by the increased number of perforations and deaths.

TABLE VIII  
ACUTE APPENDICITIS

*Effect of Cathartics on Perforations and Deaths*

Year	Total	Per cent	CATHARTIC				Total	No CATHARTIC			
			Ruptured		Not Ruptured			Ruptured		Not Ruptured	
			<i>Living</i>	<i>Dead</i>	<i>Living</i>	<i>Dead</i>		<i>Living</i>	<i>Dead</i>	<i>Living</i>	<i>Dead</i>
1928	38	19.8	24	1	13	.....	154	61	12	81	.....
1929	39	21.3	14	4	21	.....	144	47	8	88	1
1930	49	20.7	28	2	18	1	188	47	6	132	3
1931	30	13.6	17	3	9	1	191	59	12	120	.....
1932	64	14.5	36	5	23	.....	239	54	7	177	1
Total	220	19.4	119	15	84	2	916	268	45	598	5
Per cent	100.	.....	54.1	6.8	38.2	0.9	100.	29.3	4.9	65.3	0.5

Summary: 19.4 per cent of all cases received cathartics.

*Cathartics*

60.9 per cent were ruptured.  
7.7 per cent died.

*No Cathartics*

34.2 per cent were ruptured.  
5.4 per cent died.

TABLE IX  
ACUTE APPENDICITIS  
*Leucocyte Count*

Year	-10,000	11-13,000	14-17,000	18-21,000	22,000-	Total
1928	11	15	27	31	12	96
1929	10	19	38	26	23	116
1930	12	34	42	34	29	151
1931	12	25	36	35	30	138
1932	20	36	69	44	29	198
Total	65	129	212	170	123	699
Per cent	9.3	18.5	30.3	24.3	17.6	100.

*Leucocyte Count*

The leucocyte count was recorded in 699 of the 1,136 cases. At the Rhode Island Hospital the leucocyte and polymorphonuclear count are done as a routine in all ward cases in which an acute abdominal condition is suspected. A large number in which the white blood count was not stated were private cases, many of which had had it done before coming to the hospital. In many others, although the count was done, the interne had neglected to enter it in

the record. In Table IX the leucocyte counts performed are recorded by years but no attempt was made to differentiate according to the type of appendix found at operation. It will be seen that 90.7 per cent of all counts were 11,000 and over, with the highest percentage (30.3 per cent) falling between 14,000 and 17,000. We may infer from this that the leucocyte count was of aid in establishing the diagnosis in over 90 per cent of the cases in which it was performed. The polymorphonuclear count was not analyzed in detail but it is estimated that it was elevated in between 80 to 90 per cent of the acute cases.

#### *Type of Appendix*

The 1,136 cases included in the acute series were divided into:

1. Not ruptured
2. Ruptured with abscess
3. Ruptured with peritonitis

TABLE X  
ACUTE APPENDICITIS  
*Incidence according to Type*

Year	Not Ruptured		Ruptured with abscess		Ruptured with peritonitis		Total
	No.	Per cent	No.	Per cent	No.	Per cent	
1928	94	49.0	30	15.6	68	25.4	192
1929	110	60.1	26	14.2	47	25.7	183
1930	154	65.0	27	11.4	56	23.6	237
1931	130	58.8	16	7.3	75	33.9	221
1932	201	66.3	25	8.3	77	25.4	303
Total	689	60.7	124	10.9	323	28.4	1,136

In the "not ruptured" group a large number were gangrenous and in many of these and in others, free fluid was present but the cultures were sterile. In the ruptured cases, those recorded as "ruptured with abscess" showed definite evidence of a walling off process, while the remainder exhibited signs of spreading or generalized peritonitis. In the acute series 39.3 per cent of all cases were ruptured before operation. This figure is higher than is usually found although some writers include subacute cases in their total. Finney<sup>9</sup> states that "almost 20 per cent of inflamed appendices have ruptured when they reach the surgeon." It would seem, therefore, in this series, that the surgeons were dealing with a more unfavorable group of cases than is the rule. Of the 39.3 per cent of ruptured cases there was

evidence of abscess formation in 10.9 per cent while 28.4 per cent exhibited signs of spreading or generalized peritonitis.

#### *Organisms from Positive Cultures*

Cultures were taken routinely in all cases where free fluid or an abscess was present. There were 244 reports of cultures recorded and of these 82 per cent showed colon bacillus, 30.8 per cent of which were associated with pneumococcus (Table XI). It is interesting to note the presence of pneumococcus in such a large number, while *B. coli* in pure culture, and streptococcus might be expected to have been present in a higher per cent of cases.

TABLE XI  
ACUTE APPENDICITIS  
*Organisms from Positive Cultures*

Year	B. Coli & Pneumo-coccus	CULTURE			
		Strepto-coccus	B. Coli	Others	Total
1928	19	2	10	6	37
1929	7	5	18	5	35
1930	24	2	24	6	56
1931	20	1	37	2	60
1932	5	4	36	11	56
Total	75	14	125	30	244
Per cent	30.8	5.7	51.2	12.3	100.

#### *Differential Diagnosis*

It is not our purpose to go into a discussion of the several scores of conditions that may be confused with acute appendicitis and discuss the differential diagnosis in each instance. We have attempted in the main to confine our remarks in this paper to observations noted in our own series. We will mention briefly a few conditions where mistakes in diagnosis most commonly occurred.

There were several cases of acute appendicitis of the Wilkie variety in which the physician was misled by the character of the pain, absence of fever, and the late development of tenderness and spasm. The majority of these cases were ruptured on admission. A more thorough knowledge of this condition and a leucocyte and a polymorphonuclear count would have avoided a certain number of perforations and deaths.

In females acute salpingitis, as may be expected, was confused with the diagnosis in the largest number of instances. All surgeons are familiar with the points of differential diagnosis in these two condi-

tions. Acute salpingitis is usually associated with higher temperature and white blood count, and pain and rigidity are out of proportion to the apparent gravity of the situation. Careful abdominal and pelvic examination and the sedimentation time should usually establish the diagnosis when urethral and cervical smears are negative.

The diagnosis of acute appendicitis in young children is frequently difficult, the diseases with which it was most commonly confused being intestinal colic, acute pulmonary conditions, pneumococcus peritonitis and intestinal obstruction from different causes. Pyelitis, although simulating acute appendicitis in many instances, was usually diagnosed when a microscopic examination of the urine was made. It is believed that co-operation of the pediatrician and surgeon is of value in establishing a diagnosis in obscure cases in children with an acute abdominal condition.

The too frequent confusion of lobar pneumonia with acute appendicitis in this series recalls the adage of Osler that "The examination of an abdomen begins at the chin and ends at the knees." Probably the majority of surgeons do not do a thorough examination of the chest when called to see a patient suffering from abdominal pain. It is impracticable to have a medical consultation in the great majority of acute cases and the surgeon must, therefore, hold himself personally responsible for pathology above the diaphragm as well as within the abdominal cavity.

There were no other common errors in diagnosis worthy of note.

*Treatment*

In this series treatment consisted of immediate operation as soon as the diagnosis was established, except in an occasional case that arrived in the hospital in an extreme condition, or with marked dehydration, when there was a slight delay in an attempt to increase the general resistance and make it a safer surgical risk by means of intravenous saline, glucose or other necessary medication. We do not believe in the Ochsner method of treatment as two probable cases not included in this study, in which it was tried, did not respond and died without operation.

*Anesthesia*

Nitrous oxide-ether anesthesia was employed in practically all cases, a few surgeons using novo-

caine in conjunction in order to render less the amount of ether given, and to promote more satisfactory relaxation. In cases where ether appeared to be contraindicated because of the presence of colds, pulmonary disease, renal affections and other diseases, spinal anesthesia was the usual choice, although avertin was used in a few instances, supplemented by novocaine or nitrous oxide.

*Incision*

The right rectus incision was almost universally used in the 1,136 operative cases in the acute group, the great majority being of the muscle splitting variety. Other incisions used were—17 McBurney, 2 median, and in one the type of incision was not stated.

*Treatment of the Stump*

It was the policy to bury the stump, either by purse string or by interrupted sutures, in all cases where this was possible. Table XII shows that there were 94 cases in which the stump was not buried. We do not feel that the 13 deaths indicated in the table are attributable to the fact that the stump was not buried but rather to the severity of the disease that prevented it from being accomplished. In some cases the stump was covered with meso-appendix or omentum where it was impossible to bury it.

TABLE XII  
ACUTE APPENDICITIS  
*Cases in which the Stump was not Buried*

Year	Stump Not Buried		
	Living	Dead	Total
1928	16	6	22
1929	10	4	14
1930	16	.	16
1931	12	1	13
1932	27	2	29
Total	81	13	94

*Drainage*

Drainage was instituted at the discretion of the individual surgeon. There were a few cases in which it was considered that drainage was done unnecessarily, where the culture was sterile and there was very little apparent evidence of spreading infection. One is not justified, however, in making this decision from the mere study of the record.

When drainage has been instituted we believe that the drain or drains should be left in place,



without being disturbed, for at least seven days. This gives more time for protective adhesions to form and when the drain is removed the sinus will not collapse. Too early removal of drains frequently gives rise to abscess pockets along the course of the sinus.

#### *Post-operative Care*

This very important phase in the treatment of the patient is not notable in this series for any new departures or radical ideas, but was carried out along orthodox lines, and in spite of the large number of surgeons operating there was considerable uniformity in the post-operative handling of the cases. As a rule morphine was given freely within the first forty-eight hours, when necessary. Probably the majority received rectal tap water immediately after operation which was continued every four to six hours for a variable length of time. Enema was the rule on the third or fourth post-operative day. Perhaps special mention should be made of the life saving value of the Levine tube in those cases complicated by persistent vomiting or paralytic ileus. There were 8 cases in which jejunostomy was performed for intestinal obstruction, 3 of which recovered and 5 died. Clyses and intravenous therapy were used freely in all post-operative cases with marked infection and dehydration. The Fowler position was generally employed.

It will be noted in Table XIII that in 1928, 38 per cent of cases were discharged from the hospital within 15 days, and that in 1932, 61.7 per cent of cases were discharged during this same period. Likewise, in 1928, 15 per cent had a hospital stay of 31 days and over, while only 4.3 per cent remained for that length of time in 1932. This table would seem to indicate a tendency to an earlier discharge in later years, although this is probably influenced by the larger number of ruptured cases that were admitted in 1928.

TABLE XIII  
ACUTE APPENDICITIS  
*Days' Hospitalization*

Year	Per cent of cases					
	0-10 days	11-15 days	16-20 days	21-25 days	26-30 days	31- days
1928	9.4	28.6	21.9	18.8	6.3	15.0
1929	7.1	33.3	23.5	17.5	5.5	13.1
1930	10.1	43.5	22.4	7.6	5.0	11.4
1931	9.5	36.2	22.6	8.6	10.4	12.7
1932	10.6	51.1	17.2	9.9	6.9	4.3
Total	9.5	40.0	21.1	12.7	7.4	9.3

#### *End Results*

Of the 1,934 cases operated on at the Rhode Island Hospital for the five year period, 1928 to 1932, inclusive, there were 71 deaths, a mortality rate for the entire series of 3.67 per cent. In the cases of chronic appendicitis (693), and chronic appendicitis with oxyuriasis (23), there were 4 deaths, a mortality rate of 0.56 per cent. There were no deaths in the subacute group (65), or in those cases diagnosed pathologically "normal appendix with oxyuriasis" (17). The mortality for this series of appendectomies in which there was no acute process, was 0.50 per cent. Walker<sup>s</sup> found that "the mortality rate in chronic appendicitis appears to be between .5 per cent and 1 per cent at the present time." Of the 4 deaths in chronic cases—

TABLE XIV  
MORTALITY RATES BY GROUPS

Type	Number	Deaths	Mortality Per cent
Acute	1,136	67	5.89
Chronic	693	3	0.56
Chronic with oxyuriasis	23	1	
Normal with oxyuriasis	17	...	0.50
Subacute	65	...	
Total	1,934	71	3.67

1 died of generalized peritonitis;  
1 died of scarlet fever;  
2 died of lobar pneumonia.

Of the 1,061 cases of acute appendicitis that recovered, 75 or 7.1 per cent developed complications as follows:

Lobar pneumonia	21
Bronchopneumonia	2
Abscess	
residual	12
pelvic	3
subphrenic	1
abdominal wall	2
perinephritic	1
Phlebitis (femoral)	4
Parotitis	3
Hemorrhage	2
Diphtheria	2
Psychosis	2
Ileus	4
Fecal fistula	4
Empyema	1
Gangrene of left leg	1
Pyelitis	1
Pulmonary embolism	1
Catarrhal jaundice	1
Scarlet fever	1
Rupture of wound	3
Acute bronchitis	1
Total	75

There were 67 deaths in the total 1,136 acute cases, a mortality rate of 5.89 per cent. Table XV represents the mortality rate as it occurred by years. It will be noted that it was highest in 1931 (7.24) and lowest in 1932 (4.29). In the series of 33,000 cases collected by Walker the mortality was 5.3 per cent.

TABLE XV  
ACUTE APPENDICITIS  
*Mortality by Years*

Year	Number of cases	Deaths	Mortality Per cent
1928	192	13	6.77
1929	183	13	7.10
1930	237	12	5.06
1931	221	16	7.24
1932	303	13	4.29
Total	1,136	67	5.89

*Mortality According to Age*

Of the 1,136 cases of acute appendicitis, 882 or 77.6 per cent occurred in the first three decades. Out of this number there were 39 deaths or 58.2 per cent of the total. A study of the mortality for each age group as shown in Table XVI indicates that the chances for survival seem to be greatest in the second decade where the rate is 3.3 per cent. From this point onward there is practically a steady rise in the mortality, the peak being reached with 27.3 per cent between the ages of 61 to 70. It is generally conceded that diagnosis is more difficult in young children. There is also a greater tendency to the administration of laxatives and other medication before medical aid is sought. It is felt that these two factors are to a certain degree responsible for the 6.3 per cent mortality rate that occurred in the first age group.

TABLE XVI  
ACUTE APPENDICITIS  
*Incidence and Mortality according to Age*

(1)	AGE-GROUP								Not	
	1-10	11-20	21-30	31-40	41-50	51-60	61-70	71-	Stated	Total
(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	
Number of cases	223	461	198	105	85	36	22	4	2	1,136
Deaths	14	15	10	5	10	6	6	1		67
Mortality Per cent	6.3	3.3	5.1	4.8	11.8	16.7	27.3	25.0		5.89
Incidence of deaths	20.9	22.4	14.9	5.7	14.9	9.0	9.0	1.4		100.0

*Mortality According to Hours Ill Before Operation*

The effect of operative delay upon mortality is clearly indicated in Table XVII. Those cases operated on before 12 and 24 hours had a mortality of 2.1 per cent and 2.8 per cent, respectively, while 21.8 per cent and 18.8 per cent died between 48 and 96 hours and 97 hours and over, respectively. This corresponds with the findings of Muller<sup>10</sup> who had a mortality of 2.55 per cent and 2.56 per cent in cases admitted before 24 hours. His mortality after 72 hours was 11.83 per cent and 10.42 per cent. This illustrates the well known fact that delay of operation is the most important factor in increasing the mortality in acute appendicitis.

TABLE XVII  
ACUTE APPENDICITIS  
*Deaths according to Hours Ill before Operation*

Year	HOURS ILL					Not	
	0-12	13-24	25-48	49-96	97-	Stated	Total
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
1928			6	4	3	...	13
1929	1	2	4	4	2	...	13
1930	2	3	2	2	3	...	12
1931		3	3	5	5	...	16
1932	1	1	3	4	4	...	13
Total Deaths	4	9	18	19	17	...	67
Total Cases	191	318	443	87	90	7	1,136
Mortality Per cent	2.1	2.8	4.1	21.8	18.8	...	

*Mortality in Ruptured and Not Ruptured Cases*

A total of all ruptured cases gave a mortality of 13.4 per cent as contrasted with 1.0 per cent in not ruptured cases, as shown in Table XVIII.

TABLE XVIII  
ACUTE APPENDICITIS

*Mortality in Ruptured and Not Ruptured Cases*

Type	Cases		Deaths		Mortality Per cent
	No.	Per cent	No.	Per cent	
(1)	(2)	(3)	(4)	(5)	(6)
Ruptured	447	39.3	60	89.6	13.4
Not Ruptured	689	60.7	7	10.4	1.0
Total	1,136	100.0	67	100.0	5.89

Of the 67 deaths in the acute series their status on admission was as follows:

- (1) 39 were ruptured with generalized peritonitis.
- (2) 21 were ruptured with abscess.
- (3) 7 were not ruptured.

All of these cases except 5 of the "not ruptured" died with generalized peritonitis, the causes of death in these 5 being:

lobar pneumonia .....	2
general sepsis .....	1
residual abscess (not drained) .....	1
pulmonary embolism .....	1

The remaining complications in each group were:

*Ruptured with General Peritonitis*

Ileus		5
Ileus	}	1
Bronchopneumonia		
Ruptured wound		
Lobar pneumonia		2
Hemorrhage	}	1
Lobar pneumonia		
Uremia		3

*Ruptured with Abscess*

Ileus	1	
Lobar pneumonia	3	
Lobar pneumonia	}	1
Nephritis		
Bronchopneumonia	}	1
Otitis media		
Abscess (subdiaphragmatic)	1	
Uremia	1	
Atelectasis	1	
Cardiac decompensation	1	

*Not Ruptured*

Bronchopneumonia .....	1
------------------------	---

## SUMMARY

1. Of the 1,934 cases operated upon for appendicitis at the Rhode Island Hospital during the five year period, 1928 to 1932, inclusive, the distribution was as follows: 1,136 acute, 693 chronic, 23 chronic with oxyuriasis, 17 normal with oxyuriasis and 65 subacute.

2. The preponderance of chronic and subacute cases was in females; and of the acute, in males.

3. 77.6 per cent of all acute cases were under 30 years of age.

4. More than one-half of the cases (55.2 per cent) were operated on after 24 hours of illness.

5. In those cases in which cathartics were given, 60.9 per cent were ruptured and 7.7 per cent died. In cases that received no cathartic, 34.2 per cent were ruptured and 5.4 per cent died.

6. The leucocyte count was 11,000 or over in 90.7 per cent of the cases.

7. In the acute cases, 60.7 per cent were not ruptured, 10.9 per cent were ruptured with abscess, and 28.4 per cent were ruptured with peritonitis.

8. Of the cultures recorded in 244 cases, the colon bacillus predominated.

9. In the acute cases treatment consisted of immediate operation as soon as the diagnosis was established.

10. About one-half of the cases were discharged within 15 days.

11. In the fatal cases, complications occurred in 40.7 per cent and in those that recovered, 7.1 per cent.

12. The mortality increased with the advance in age.

13. Operative delay increased the rate of mortality.

14. The mortality rate in ruptured cases was 13.4 per cent, and in not ruptured cases, 1.0 per cent.

15. The mortality rate for acute cases was 5.89 per cent.

The mortality rate for the combined chronic, subacute and oxyuriasis cases was 0.50 per cent.

The mortality rate for the entire group was 3.6 per cent.



## CONCLUSION

The mortality in acute appendicitis is due to three factors:

1. Delay in diagnosis
2. Administration of cathartics
3. Faulty surgical management

Delayed diagnosis is due to several factors, the most important of which is the failure to call the family physician at the onset of the disease. With increased skill of the modern physician, the diagnosis as a rule can be promptly made. The administration of morphine to relieve pain before the diagnosis is made is another factor in delay. Morphine masks the symptoms and should never be given until the diagnosis of appendicitis has been made or excluded.

Catharsis stimulates peristalsis and causes rupture of the appendix. Cathartics should never be administered, therefore, until appendicitis has been ruled out.

Faulty surgical management applies to operative technique, the question of drainage and the after care of the patient. The operative mortality of experienced surgeons is not increasing. It is doubtless increasing in the hands of the occasional operator. The operation for acute appendicitis should only be performed by men who have had adequate experience in abdominal surgery.

## BIBLIOGRAPHY

1. Boland, A. M. A. J., 1932, Vol. 99, No. 6: 443.
2. World Almanac, 1934, 290.
3. U. S. Mortality Statistics.
4. Gordon, Arch. of Path., 1933, Vol. 16, No. 2: 178.
5. Bower, A. M. A. J., 1931, Vol. 96, No. 18: 1461.
6. Wilkie, Brit. M. J., 1931, Feb. 14, p. 253.
7. Clute, New Eng. J. Med., 1932, Vol. 207, No. 8: 347.
8. Walker, New Eng. J. Med., 1933, Vol. 208, No. 3: 113.
9. Finney, Surg., Gyn. & Obst., 1933, Vol. lvi, No. 2A: 360.
10. Muller, New Eng. J. Med., 1932, Vol. 207, No. 8: 355.



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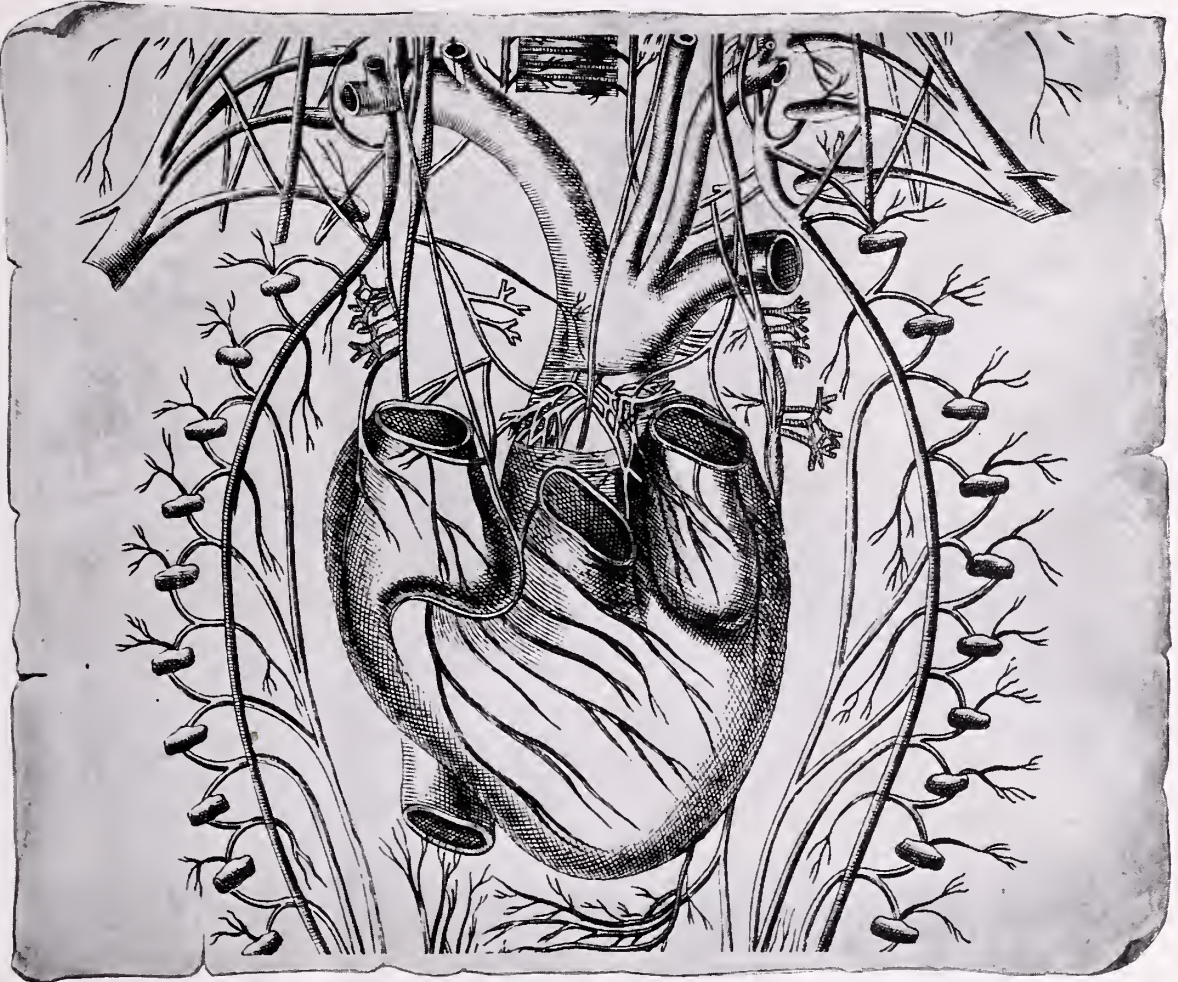
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# CANNED FOODS AND THE PUBLIC HEALTH

## V. FOOD IN THE OPEN CAN

• In September 1935, the facts about food in the open can were presented on this page. It was stated that there was no reason, from the standpoint of food poisoning, why food must be removed immediately after the can is opened. This statement bore the Seal of Acceptance of The Committee on Foods of the American Medical Association.

However, since that time, two incidents have occurred which lead us to present again the facts concerning food in the open can.

First, late last fall, a national organization dedicated to the relief of human distress during war and disaster, issued a list of precautions designed to reduce accidents in the home, in which it was erroneously recommended that food be removed from the can immediately. The Department of Agriculture detected this error and called it to the attention of those responsible for issuance of the recommendations. A correction was made as soon as possible but the damage had already been done. The original safety recommendations had meanwhile been issued in schools and newspapers throughout the country, thus giving further support to this old, unbased prejudice against canned foods.

Second, in the early months of 1936, a release regarding food in the open can was

made by a national press service to newspapers throughout the land. The strong inference was made in this press release that food left in the open can might become hazardous to consumer health.

This dissemination of misinformation, referred to in the two instances cited above, has caused an increase in the number of consumer inquiries concerning the safety of food in the open can. To reply to these requests for reliable information, we can well quote from a recent release made by the Department of Agriculture (1).

(1) U.S.D.A. Press Release, Feb. 23, 1936

"It is just as safe to keep canned food in the can it comes in—if the can is cool and covered—as it is to empty the food into another container. Thousands of housewives are firm in the faith that canned goods ought to be emptied as soon as the can is opened, or at least before the remainder of the food goes into the refrigerator—one of the persistent food fallacies. The question keeps coming to the Bureau of Home Economics in letters from home-makers.

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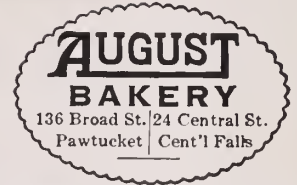
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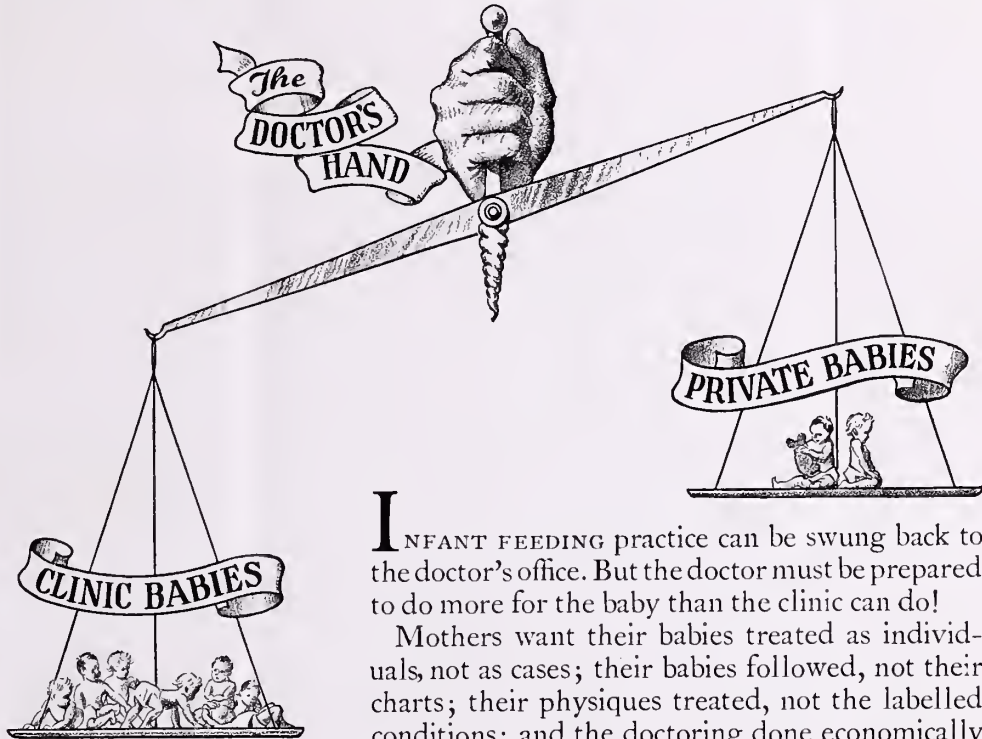
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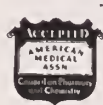
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## ORIGINAL ARTICLES

### BRONCHIECTASIS\*

By J. MURRAY BEARDSLEY, M.D.

82 WATERMAN STREET, PROVIDENCE, R. I.

Bronchiectasis is the dilatation of a bronchus or bronchi. These dilatations may give rise to few or no symptoms or may become infected and result in persistent cough, profuse expectoration and other symptoms and signs more commonly associated with this disease.

This paper is based upon observations made of forty cases of bronchiectasis over a period of from one to twelve years, the diagnosis of which has been proved in every case by injection of the bronchial tree with lipiodol.

#### *Etiology and Pathology*

Etiologically, bronchiectasis may be congenital or acquired. The congenital forms consist of the atelectatic type and developmental deformities such as congenital cystic disease. Undoubtedly many cases persist for years without symptoms and it is therefore impossible to be certain of the relative proportion in each group and, in the acquired type, to determine at what time the actual development of bronchiectasis occurs.

Our interest and that of most clinicians lies chiefly in the so-called acquired group when definite symptoms of disease are present at the time the patient is first observed.

Although many theories are advanced to explain the development of bronchiectatic dilatation, most are agreed that the two main responsible factors are infection and pressure. Infection may involve only the epithelium or the sub-epithelial lining or invade the entire bronchial wall, with destruction of its muscular and elastic coats and replacement by fibrous tissue. Interstitial fibrosis of the parenchyma may also occur and extend to the periphery of the lung and involve its pleural surface. So that in the more advanced forms the involved bronchi consist of infected tubes or sacs filled with accumulated secretions and pus, with a varying amount of

peribronchial infiltration and fibrosis. The source of infection is usually attributed to the upper respiratory diseases such as infections of nose, throat and sinuses and to the lower respiratory diseases such as measles, whooping cough and pneumonia. To what disease the bronchiectasis can be attributed in each case we find it difficult to state with any marked degree of accuracy because the relationship between the respiratory diseases and the onset of symptoms of bronchiectasis are very indefinite in most cases.

TABLE I

*Incidence of Respiratory Diseases in 40 Cases*

Diseases	No. of Cases	Per cent. of Total
Measles .....	27	67.5
Whooping Cough .....	20	50.0
Measles and Whooping Cough .....	17	42.5
Pneumonia .....	17	42.5
Acute Bronchitis .....	23	57.5
Influenza .....	12	30.0
Frequent Colds .....	25	62.2

The weakness of the bronchial wall being present, whether congenitally acquired or from metaplastic changes following infection or from other causes, we may briefly mention the phenomena of pressure. A positive pressure is always present within the bronchus as contrasted with a negative pressure in the peribronchial lung structure which the normal bronchus with its muscular and elastic coats is able to withstand. Many factors serve to increase this pressure such as deep breathing, inspiratory spasms preceding cough, which if kept up for a long period tend to cause dilatation of the weakened or inelastic bronchial wall. Obstruction of the bronchus from any cause such as by mucous plugs, fibrotic constrictions, foreign bodies, pressure from without by tumors, atelectasis, inflammatory conditions, or other factors which serve to obstruct the free egress of air, will raise the pressure within the bronchus and naturally will predispose to ectasia. These changes are more apt to occur during childhood because of the more primitive type of bronchial tree and its tendency to become more easily filled with secretion, which in itself may be responsible for increased intrabronchial pressure.

\*Read before the Providence Medical Association, March 2d, 1936.

Types

Many types of bronchiectasis are described such as fusiform, beaded, globular, sacculated, tubular, clubbed, cylindrical, varicose, atelectatic and others. We believe that elaborate classification based upon morphology serve to confuse and are of no practical value. We have been able to divide our series into sacculated and tubular types and mixed, the latter being a combination of sacculated and tubular types occurring in the same chest. There are eight of the mixed variety and sixteen of each in the other two types.

TABLE II  
Distribution according to Type

Types	Unilateral		Bilateral	Total
	R. Lung	L. Lung		
Sacculated	3	7	6	16
Tubular	3	7	6	16
Mixed	0	2	6	8
Total	6	16	18	40
Total involvement—right lung				24
Total involvement—left lung				34

These cases are also classified as wet or dry depending on whether or not expectoration is present. In this series there are 33 wet and 7 dry.

Symptoms and Physical Signs

Bronchiectasis usually suggests to our mind a patient with a chronic cough, moderate to profuse expectoration, clubbing of the fingers, with moist rales at the base of one or both lungs. As a matter of fact there are no distinctive symptoms or physical signs in a large percentage of cases. Variation of symptoms and signs is to be expected because of the variation in the type and extent of the lesions, which may vary all the way from one or two small dilatations to those with massive involvement of both lungs, exhibiting a picture of chronic suppurative pulmonary disease. Consequently, the patient's only complaint may be a slight cough or an occasional hemoptysis and no physical signs may be elicited. On the other hand there may be constant cough, profuse expectoration, dyspnea, clubbing of fingers and physical signs suggesting extensive pulmonary excavation.

In the wet variety dullness is to be expected over the affected area and moist rales are usually present but we must not be misled by their absence which may occur when the dilatations are filled with secretions.

The dry type of bronchiectasis where no demonstrable infection is present usually presents the least

in the way of physical signs and symptoms. The disease may manifest itself with only an occasional cough or streaked sputum, or may be ushered in with frank hemoptysis. Of the 40 cases observed, 16 or 40 per cent. had hemoptysis, the amount varying from streaking to profuse hemorrhage; of this number 4 occurred out of the dry group of which there were 7, and 12 in the wet of which there were 33. Graham, Singer and Ballou<sup>1</sup> state that hemoptysis occurs more frequently in bronchiectasis than it does in pulmonary tuberculosis.

Diagnosis

The incidence according to sex revealed 24 males (60%) and 16 females. This is about an average sex distribution as compared with other series of cases such as that of Fletcher<sup>2</sup> who found 55 per cent. males and 45 per cent. females. The distribution according to age groups showed the highest number to fall in the 10 to 19 and the 20 to 29 year age groups, the number in each group being 12, and the 24 in these two groups accounting for 60 per cent. of the cases studied. This corresponds fairly closely with the series of 182 cases at the Barnes Hospital<sup>3</sup> in which the greatest incidence, fell about equally in these two decades. It should be stated that the ages quoted refer to the age when the diagnosis was definitely proved and that there is no doubt that the disease had existed several years in many instances.

TABLE III  
Distribution according to Age Groups

Age Groups	Sex		Total	Per cent. Distribution
	Male	Female		
0 to 9	1	0	1	02.5
10 to 19	8	4	12	30.0
20 to 29	5	7	12	30.0
30 to 39	1	3	4	10.0
40 to 49	5	1	6	15.0
50 to 59	4	1	5	12.5
Total	24	16	40	100.0

In some cases the diagnosis of bronchiectasis can be suspected from the history, symptoms and physical signs, but it is impossible to be sure of this diagnosis without resorting to lipiodol injection of the bronchial tree.

Routine x-rays of the chest have given us very little information. Many cases with honeycomb shadows and densities at the base of the lung which were believed to be bronchiectatic dilatations frequently showed a normal filling with lipiodol. We have attributed many of these densities to peribronchial vascular changes rather than to abnormality of the bronchus itself, such as may occur



with a subacute or chronic bronchitis. On the other hand patients whose x-ray plates showed apparently little pathology proved to be bronchiectatics after the injection with lipiodol; in fact it is impossible to prove or rule out any case with suggestive symptoms unless the bronchography of the lungs has been fully investigated.

Any case with cough, expectoration or hemoptysis, in which the diagnosis has not been definitely established, may be bronchiectasis unless it has been proved that the bronchial tree is normal. It may be confused with chronic bronchitis, tuberculosis, bronchial stenosis, benign or malignant tumors of the bronchus, lung abscess, foreign bodies or other less common diseases.

It is not to be expected that lipiodol injections will clear up the diagnosis in all doubtful cases, but matters may be greatly facilitated by proving a normal bronchial tree, establishing the diagnosis of bronchiectasis, or the presence of an obstructed bronchus.

Of the 40 cases studied, 7 had had previous residence in tuberculosis sanatoria but were discharged because of persistently negative sputum, with no evidence of clinical tuberculosis. Two cases included in this series exhibiting lower lobe dilations were found to be cases of basal tuberculosis. When first seen the routine x-ray was not characteristic, no positive sputum had been obtained and the diagnosis was unsuspected by us. This has put us on our guard against overlooking this latter diagnosis which at times I believe we are prone to forget.

Repeated sputum examinations for tubercle bacilli were done in every case with expectoration. It was attempted to have cultural studies done for determination of other organisms with special reference to their aerobic and anaerobic characteristics, but there were no available facilities for this purpose. Smears showed the usual mixed type of infection which characterizes the disease but fusiform and spirochaetes have been found only in rare instances. From personal observation and examination of the literature relative to sputum studies we have not felt that our own outlook would be greatly influenced from a therapeutic standpoint.

The technique of lipiodol injection has been done by the supraglottic method with the exception of four cases, two of which were done by the catheter method and two by direct injection through the cricothyroid membrane. We believe that the supraglottic method is the one of choice except in iso-

lated instances. In over two hundred injections done in this manner, in which all of the patients have been ambulatory, we have had no untoward results of any kind except slight iodism in two cases.

### *Treatment*

Bronchiectasis falls into that group of diseases where curative treatment on the whole has been unsatisfactory. Consequently, many forms of therapy have been suggested and carried out, although a study of the literature reveals contradictory results in many instances. Until the advent of lobectomy very little progress had been made in the actual curing of the disease and the hazards of this operation in the past have been so great that we have not felt justified in recommending it to patients, a large number of whom are comparatively well. We are glad to say that the technique of this operation has so improved that we now feel more free to advise it in those cases where the indication exists.

The methods of treatment used in this study were as follows

#### 1. POSTURAL DRAINAGE AND OTHER GENERAL MEASURES

In this first group treatment was directed to clearing up foci of infection with special reference to the nose, throat and sinuses, fresh air, adequate nourishment, general hygienic treatment and postural drainage. Diseased tonsils were removed and sinuses, suspected of infection, were x-rayed (25%) and referred for treatment.

The intermittent type of postural drainage has been used and was carried out three to five minutes several times a day, depending upon the amount of expectoration present.

Associated with the above measures we have used drugs to a rather limited degree, such as creosote to diminish the foetid odor of expectoration and other drugs for symptomatic relief.

Several of these cases have been under observation for a long time—for instance, one case, 12 years; two cases, 10 years; one case, 9 years; one case, 8 years; two cases, 7 years. They have had special care at Lakeside Preventorium so that postural drainage and general hygienic measures have been pretty well carried out. Needless to say, these cases have benefited—this has been noted in weight gain, some decrease in the amount of expectoration and cough. Since no lipiodol injections were done on these cases up until three years ago, it cannot be definitely stated whether the bronchiectatic dilata-

tions have diminished or increased in size. It is our impression from questioning these patients and from repeated examinations over a period of years that very little permanent improvement has occurred, although we believe that there is very little doubt but that they would have been decidedly worse had they remained untreated. When these patients returned to their homes it is possible that postural drainage in some cases was not faithfully carried out, and this is absolutely essential if it is to be effective.

## 2. LIPIODOL THERAPY

A group of 7 cases in which the above more general measures failed to give any marked benefit were treated with repeated lipiodol injections. All the cases treated had bilateral disease. We were unable to determine in advance from a study of the morphological appearance of the lesion which cases would be benefited. Five cases obtained definite relief of symptoms noted by lessened expectoration, some weight gain, and the patients stated that they felt better in general. These injections were given at monthly intervals which were lengthened as improvement continued, 10 cc. of lipiodol being injected into each lung. It has been a frequent experience to have patients return requesting lipiodol injections following the preliminary injection for diagnosis. Relief from this method of treatment has in every case been of a temporary nature, the period of benefit varying in different cases but on an average of from one to two months. Oschner,<sup>4</sup> in his series, reports 32 per cent. with complete relief from symptoms and 4 cases in which the dilatations disappeared. We have been unable to demonstrate any change in the appearance of the lesion and in no case can we say that the symptoms have entirely disappeared. Much experimental work has been done to prove and disprove the value of lipiodol as a therapeutic measure, but we are not interested in this phase of the subject at this time. Suffice it to say, in our opinion it should be looked upon as an accepted method of treatment and in our experience has been most helpful in adults in whom the disease, usually bilateral, has been present for a considerable period of time, where the bronchial walls are believed to be more or less rigid so that collapse methods are of little value, and to whom we can offer very little else in the way of active therapy.

## 3. OPERATIONS ON THE PHRENIC NERVE

We employed phrenic crushing in one case. This

patient's only symptom was repeated hemoptysis and exhibited the dilatation in the right lower lobe at the extreme base of the lung. We felt that here was a real indication for this operation and apparently it was justified for the patient has had no further hemoptysis. We believe that in general phrenicectomy in bronchiectasis is inadvisable because as a collapse measure it is inadequate, and should the result be unfavorable it cannot be recalled. If it is to be employed, repeated phrenic crushings should be done which will give a temporary elevation to the diaphragm before going on to produce a permanent type of collapse therapy.

## 4. BRONCHOSCOPIC LAVAGE

Bronchoscopic lavage was carried out in only two cases. These patients had bilateral disease and were unrelieved by general measures, postural drainage or treatment with lipiodol. These cases were selected because the outstanding feature was the difficulty experienced in attempting to expectorate and in whom the expectoration was of a tenacious character. The relief of all symptoms was very definitely noted but as before this was only temporary.

## 5. PNEUMOTHORAX

Six cases were given pneumothorax. Five were unilateral and had a considerable amount of expectoration; one case, in which bilateral disease was present, was of the dry type, pneumothorax being instituted because of repeated hemorrhages from the left side. We have been very well satisfied with the results obtained in all these cases—the outstanding feature being the marked reduction in the amount of expectoration in every case of the wet type, two of which became practically sputum free. In addition, hemorrhage was immediately stopped in the one case that was having repeated hemoptysis.

Besides reduction in the amount of expectoration general improvement was noted in every case except one, this one being the dry type. There was definite gain in weight and an improvement in the feeling of well-being on the part of the patients. In conjunction with pneumothorax postural drainage was still encouraged in all these patients, although it was difficult to enforce this in those who were unable to raise sputum in this manner.

It has been our experience that pneumothorax is effective in causing marked diminution of symptoms in all cases of unilateral bronchiectasis that have expectoration. This improvement has varied



directly with the degree of collapse and unfortunately every case had adhesions which interfered with a perfect collapse. Possibly in some of these cases pneumolysis should be performed but the patients exhibiting the type of adhesions where this procedure is indicated have been so well satisfied with their own improvement that they have hesitated to undergo the operation.

In no case has there been chills or temperature which would indicate that collapse therapy has interfered with drainage.

Case I: A female, age 40. Pneumothorax was instituted in this instance because of persistent hemoptysis, this case being the dry type of bronchiectasis. Although the disease was bilateral, physical signs indicated that the hemorrhage was coming from the left side. Pneumothorax was kept up on the left side for eight months and although successful in checking any further hemoptysis, the patient's general condition became worse. This was noted chiefly by loss of weight and pneumothorax was therefore discontinued. No further hemoptysis has occurred.

Case II: A female on whom pneumothorax has been kept up for three years. Treatment was begun at the age of 15. Before beginning treatment the amount of expectoration was from 10 to 12 oz. daily. During the first few months this was reduced to 1½ oz. and was maintained at this amount for about ten months. While spending a vacation at a girls' camp, this patient developed pneumonia and pneumothorax treatment was discontinued for several weeks. After the resumption of pneumothorax the collapse was limited chiefly to the lower lobe on account of adhesions at the upper part of the lung. It has been continued, however, because the amount of sputum is only about 3 oz. daily. Patient's general health is excellent.

Case III: A male, age 18, on whom pneumothorax was maintained 1½ years. Before beginning treatment expectoration was 6 to 7 oz. daily. After an adequate collapse had been accomplished, this patient became sputum free and remained so as long as pneumothorax was kept up. Unfortunately this boy's family moved out of town where it was impossible for him to continue with this type of treatment.

Case IV: A male, age 20, has been receiving pneumothorax treatment for five months. Sputum has been reduced from 9 to 3 oz. daily.

Case V: A male, age 17, under treatment three months. Sputum in this case was reduced from 6 oz. to 2 oz.

Case VI: This is a male, age 18, who has been under treatment five months. At the onset of treatment this patient was raising 6 to 8 oz. daily. He is now sputum free.

## 6. LOBECTOMY

We have only one case in which lobectomy was performed. This was in a ten year old boy in which

the left lower lobe was removed. The bronchiectasis in this case was not confined entirely to this lobe although the disease was most extensive in this location. A two-stage lobectomy was done and has been followed by improvement in cough and expectoration, but these have not entirely disappeared and he is still being treated by postural drainage and other general measures. The lobectomy was done by Dr. Edward D. Churchill.

The subject of lobectomy in the treatment of bronchiectasis is a large one and cannot be dealt with in this paper. As you are aware it is one of the greatest advances that has been made as a cure for this disease. There is one point, however, that I would like to make. We hear not infrequently thoracic surgeons, when they come to a discussion of bronchiectasis, dismiss all forms of treatment except lobectomy as unsuccessful and conclude that excision of the diseased part is obviously the method of choice. When we consider by a generous estimate that in not more than forty per cent. of cases is surgery indicated and of this number not more than half will consent to undergo operative procedure, their remains about 80 per cent. who still have their bronchiectasis and require conservative treatment. For this reason we should not be in too great haste to throw all therapeutic measures except lobectomy into the discard.

## Summary

1. Forty cases of bronchiectasis proven by lipiodol injection have been observed.
2. The left lung was more frequently involved than the right.
3. The symptoms in many cases were not characteristic and as a rule varied with the type and extent of the lesion.
4. Lipiodol injection of the bronchial tree is essential to prove the diagnosis.
5. Definite success has been achieved in diminution of expectoration and relief of other symptoms, but further study is necessary before making claims that any measures employed will result in permanent benefit.

## REFERENCES

1. Graham, Singer & Ballon: Surgical Diseases of the Chest, p. 606. Philadelphia, Lea & Febiger, 1935.
2. Fletcher, E.: Bronchiectasis—study of 100 proved cases, J. Thoracic Surg., Vol. 4, p. 460.
3. Graham, Singer & Ballon: p. 603.
4. Oschner, Alton: Bronchiectasis, Am. J. Med. Sci., Vol. 179, p. 388.

NOTE I. Illustrative lantern slides accompanied this paper.

NOTE II. I wish to acknowledge the assistance of Dr. U. E. Zambarano who was associated with me in the work done on these cases.



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<div>PAWTUCKET</div> <div>Meets the third Thursday in each month excepting July and August</div> <div>WALTER J. DUFRESNE THAD A. KROLICKI</div> <div><i>President</i> <i>Secretary</i></div> <div>Pawtucket Pawtucket</div>		

### DISTRICT SOCIETIES

<div>KENT</div> <div>Meets the second Thursday in each month</div> <div>ROCCO ABBATE GEORGE L. YOUNG</div> <div><i>President</i> <i>Secretary</i></div> <div>Lakewood East Greenwich</div>			<div>PROVIDENCE</div> <div>Meets the first Monday in each month excepting July, August and September</div> <div>WILLIAM S. STREKER HERMAN A. LAWSON</div> <div><i>President</i> <i>Secretary</i></div> <div>Providence Providence</div>		
<div>NEWPORT</div> <div>Meets the second Thursday in each month</div> <div>HORACE P. BECK ALFRED M. TARTAGLINO</div> <div><i>President</i> <i>Secretary</i></div> <div>Newport Newport</div>			<div>WASHINGTON</div> <div>Meets the second Wednesday in January, April, July and October</div> <div>JOHN E. RUISE JOHN CHAMPLIN, JR.</div> <div><i>President</i> <i>Secretary</i></div> <div>Westerly Westerly</div>		
			<div>WOONSOCKET</div> <div>Meets the second Thursday in each month excepting July and August</div> <div>HENRI GAUTHIER G. G. DUPRE</div> <div><i>President</i> <i>Secretary</i></div> <div>Woonsocket Woonsocket</div>		

**R. I. Ophthalmological and Otological Society**—2d Thursday—October, December, February, April and Annual at call of President.  
Dr. N. A. Bolotow, President; Dr. Gordon J. McCurdy, Secretary  
**The R. I. Medico-Legal Society**—Last Thursday—January, April, June and October, Benjamin F. Tefft, M.D., President; Dr. Jacob S. Kelley, Secretary-Treasurer.

## EDITORIALS

### MEDICO-ECONOMICS ADVANCES

Physicians are at last becoming sensitive to their own welfare. This is evinced by the recent formation of two medical groups independent of the organized medical societies. In January of this year a group of physicians in Pawtucket formed an organization known as the Caduceus Club whose expressed purpose is "to crystallize the opinion of medical men on problems affecting their welfare in

relationship to the community and to each other." More recently in East Providence there has been formed the East Providence Physicians' Association. These organizations have no conflict with the regular district societies, inasmuch as the membership is limited strictly to the physicians in the respective localities and their problems are economic rather than scientific.  
The Committee on Public Health Clinics of this Society recommended, in its last annual report, the formation of just such clubs and pointed out the impossibility of the district society being able to cope with the ever changing picture of medical

practise in the community divisions of a given district. In other words, the medico-economic problems pertinent to Cranston, for example, are vastly different than in East Providence. However, both areas are served by the Providence Medical Society.

Medical men must organize and discuss the problems affecting their welfare and must determine an attitude and policy for their relations with each other and the community which they serve. Organization of the above mentioned clubs constitute an official local unit with whom health agencies and lay philanthropic groups may deal. It is hoped that similar clubs will be formed in Cranston, Warren, Bristol and many other communities where a physicians' association can operate as a unit with related health agencies and thereby foster better understanding and a more sympathetic and co-operative attitude among those interested in health problems.

CHARLES L. FARRELL, M.D.

### COUNTY HEALTH UNITS

County Health Units are about to become a reality in Rhode Island. For a long time we have had a zero rating at Washington on matters pertaining to county health programs. Officials are hard at work to get it under way sometime in July of this year and already three physicians and their personnel are being trained in Public Health courses in Boston.

There will be three units for this state: one in Newport, one in Washington County and one in Woonsocket. These units will co-operate with physicians and practitioners will benefit. This will stimulate the profession to keep pace with the newest thoughts in public health work. The units will function strictly as public health units and they will not interfere in any way with private practice.

It does mean a scientific attempt for the control of communicable diseases, better records, surveys of health menaces and co-operation with the private practitioner to prevent the development and spread of communicable diseases.

### M. D. TRAINED ABROAD

Apart from the matter of graduate study and research in foreign clinics, which may represent

anything from an honest effort to get information and inspiration from real leaders to a combination of junket and the acquisition of a camouflage of false prestige, we have in this country the further problem of dealing with the products of undergraduate training in foreign medical schools. It is a well-known fact that a large proportion of these students are Americans, usually of foreign parentage, who have matriculated abroad either because of inability to gain admission to medical schools in this country, or if admitted, because of inability to maintain their standing. The training in most European schools may be excellent for practice in the countries concerned but is certainly not the best preparation for practice here. The American Medical Association and the Boards of Medical Examiners of the various states are well aware of this situation. If the public is to be protected there must be no granting of licenses to inadequately trained practitioners. In our own state the rules adopted by the board cover this situation adequately and no amount of political pressure can be allowed to influence the decisions made honestly under these rules. The rules do not, by any means, present an insurmountable barrier to physicians educated abroad but they do make reasonably certain that persons of inferior ability and training will not be allowed by means of money spent abroad and pressure applied at home to become licensed physicians qualified under the law to be guardians of the health of citizens of Rhode Island.

### PERORAL ENDOSCOPY AS AN AID IN THE DIAGNOSIS OF DISEASES OF THE BRONCHI AND ESOPHAGUS\*

By LINLEY C. HAPP, M.D.

124 WATERMAN STREET, PROVIDENCE, R. I.

Peroral Endoscopy is a general term applied to the endoscopic examination of the larynx, laryngopharynx, trachea, bronchi, esophagus and stomach. In making these examinations, electrically lighted tubes serve as specula to push aside any obstruction and to bring into view the tissue to be examined. I am only familiar with the Jackson and Mosher type of instruments which are distally lighted. At the request of some of the men, I have brought along some of the instruments used in this type of

\*Read before the Rhode Island Medical Society, March 5th, 1936.

work so that the procedure may be better understood. (Demonstration of the Jackson laryngoscope, bronchoscopes, aspirating tips, laryngeal bronchoscopic and esophagosopic forceps, the Jackson and Mosher types of esophagoscopes.

As you know, in making a bronchoscopic examination, we use local anesthesia and we examine directly the trachea and bronchial tree. Its use as a diagnostic aid is of value in all those cases that cannot be unraveled by the methods commonly employed in the diagnosis of chest diseases. On the medical service of every large hospital and in every sanatorium there are undiagnosed cases. In the latter, it is not only important to rule out tuberculosis but to establish a correct diagnosis. Many of these are bronchiectasis. Others are bronchial carcinoma. Unless these are recognized early, little can be accomplished by treatment. With the bronchoscope we can often make certain anatomical diagnosis with regard to the portion of the lung involved. Among these are bronchial obstruction and pulmonary suppuration.

Bronchial obstruction may be diagnosed clinically and by physical examination and should always be recognized by the aid of the fluoroscope and by films taken on full inspiration and expiration. If the obstruction is produced by an aspirated or endogenous foreign body, bronchoscopy is the only treatment worthy of consideration. If the obstruction is a growth, it is necessary to ascertain whether it is benign or malignant, by removing a piece. If benign, the growth may be entirely removed by the aid of the bronchoscope and forceps at one time or it may require numerous removals to wholly get rid of the obstruction. If it is malignant, the degree of malignancy can be ascertained by the tissue removed, and then referred for a pneumonectomy or X-ray treatment. If there is a stricture, this can be dilated with the bronchial dilator through the bronchoscope. If the obstruction is extra-bronchial, causing compression stenosis, bronchoscopy is indicated to ascertain the character of the process and to determine what plan of treatment is to be carried out. Failure to bring a case of bronchial obstruction to a final conclusion will not only deprive the patient of his only chance to recover, but will always lead to suppuration, distal to the obstruction.

Bronchial carcinoma, before the advent of bronchoscopy, was rarely recognized during life, but was found at autopsy. The performance of bronchoscopy in cases of bronchial obstruction, per-

sistent cough, unexplained wheeze or hemoptysis, has permitted a positive diagnosis in many cases. In some, the diagnosis was made sufficiently early so that pneumonectomy has been done. It must be emphasized that cough and wheeze are the two early symptoms of bronchogenic carcinoma. A cough which remains unexplained for a month should be further investigated. We are prone to associate asthma with a wheeze, which is a narrowing of a bronchus. And since carcinoma more commonly involves the larger bronchi, direct examination of these bronchi certainly seems like a logical procedure if there is a question of stenosis.

Now regarding tuberculosis, many men believe that bronchoscopy is absolutely contra-indicated. In the average case of tuberculosis, bronchoscopy is not necessary to make a diagnosis, but there are a large group of cases of suspected tuberculosis in which a positive diagnosis cannot be made. In these, bronchoscopy is very clearly indicated. Very often we get a history of hemoptysis with but little expectoration, only to find by bronchoscopy or pneumonography that the patient has bronchiectasis. Then again there are cases who do not raise any sputum and by aspiration of a bronchus, through a bronchoscope the diagnosis may be proved. It has also a very definite place in explaining certain signs and symptoms that have developed in a known case of tuberculosis.

Pulmonary abscess can be definitely localized by the bronchoscope. By such an examination one can determine the bronchus that is involved and it can be drained. Many times the surgeon can be enlightened as to its location, so that he can plan his operation to advantage. It must not be forgotten that a pulmonary abscess may develop secondary to a carcinoma or a foreign body. Also that bronchoscopy has a very definite place in the treatment of pulmonary abscess.

Concerning bronchiectasis, bronchoscopy is very definitely indicated in diagnosis and treatment. Many times patients are seen with a chronic cough and expectoration. By removing the secretion and then by injecting iodized oil, one can rule out or make a diagnosis. Sometimes bronchiectasis involves an upper lobe as well as a lower or middle lobe and so it is necessary to inspect the whole bronchial tree before the patient is turned over to the surgeon.

In discussing the esophagus, it might be said that its function is to convey to the stomach, by a series



of co-ordinated muscular movements, food, fluids, as well as large quantities of saliva more or less continuously, and that it lacks a definite nerve supply. It therefore follows that any pathological process that compresses the esophagus from without or that involves the esophageal wall itself, will encroach upon its lumen and will produce a variable degree of interference with the function of swallowing. It is also true that any disturbance of the esophageal innervation or the co-ordinated muscular movements will set up reflexes which interfere with the act of swallowing and pain, a symptom of great importance, is rarely complained of early.

The most common symptom of esophageal disease, and very often the only one, is dysphagia. Pain is a late manifestation.

A very careful history will elicit a possible etiological factor as:

1. Intentional or accidental swallowing of a caustic or corrosive.
2. Certain illnesses, as typhoid fever.
3. During pregnancy.
4. Some disappointment.

Physical examination with the aid of mirror laryngoscopy will often give a clue to the diagnosis. Patients with tuberculous, laryngitis, recurrent paralysis of the larynx, neoplasm involving the laryngo-pharynx and epiglottis, complain of difficult or painful swallowing. Dysphagia may also occur with aneurysm of the aorta or in mediastinal neoplasm. A Wasserman examination sometimes will aid. However the final aids are the X-ray to corroborate the physical findings in the chest and to study the function of the esophagus and esophagoscopy to inspect the interior of the esophagus.

The X-ray and fluoroscopic examination will contribute much to mediastinal disease which may give rise to esophageal symptoms as a result of compression or displacement. Esophageal function can be studied only by fluoroscopy with the aid of an opaque mixture. In this manner there can be detected the presence of any disturbance in esophageal function, any deviation of its course or abnormality of its lumen. These findings can be interpreted in terms of pathological changes and in many instances are correct. However, they cannot be accepted as conclusive and should be supplemented by esophagoscopy.

Esophagoscopy can be done under local or general anaesthesia with either the Jackson or the

(Continued on page 92)

## THE JOURNAL'S COLUMN

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To insure prompt attention, the readers of this JOURNAL are advised: That matters pertaining to advertising, mailing and accounts should be addressed the Business Manager, Dr. C. W. Skelton, 106 Francis Street, Providence, R. I.

Other matters, books for review, notices, manuscript, letters, reports of meetings, and all affairs of literary nature should be addressed to the Editor, Dr. Frederick N. Brown, 309 Olney Street, Providence, R. I.

### AS TO BOOK REVIEWS

Books received for review are the property of the Rhode Island Medical Society.

Inasmuch as it is a compliment to be asked to review a scientific book, it is to be hoped in courtesy to the publishers that the review may be finished within a period of thirty days, the book sent to the Society's library and review to the Editor.

Should sixty days elapse before receipt of book (and review) the matter must be referred to the discretionary action of the Society in the recovery of its property.

"Letters to the Editor" are considered to be the personal expression of the writer's opinion upon the subject of which he writes.

The RHODE ISLAND MEDICAL JOURNAL disclaims any responsibility for these opinions and is not to be held accountable for any sentiment therein expressed or implied.

### BOOKS RECEIVED FOR REVIEW

**BEHAVIOR DEVELOPMENT IN INFANTS.** A Survey of the Literature on Prenatal and Postnatal Activities, 1920-1934. By Evelyn Dewey. Published for the Josiah Macy, Jr., Foundation by Columbia Press, 1935. 321 pages. Price \$3.50.

The author defines behavior as the neuromuscular and glandular reactions of living human organisms and though recognizing that social and emotional development might be included they are not discussed. The reason given for this limitation is that these subjects tend to lead into fields of theoretical speculation where there is as yet no satisfactory theory of the processes underlying strictly objective neuromuscular behavior patterns.

The theories of behavior development that are briefly dealt with are those of the Behaviorist and Gestalt Schools. The author notes that most of the physiologists and neurologists working on the correlation of structure and function at the present time tend, in their interpretations of results, to support the underlying principles of the Gestalt

concepts—that growth or learning as a process proceeds, in general, from the whole to the part.

The book is divided into five main divisions:

- Part I: Growth Processes.
- Part II: Behavior of the Human Fetus.
- Part III: Neonatal Behavior.
- Part IV: Behavior During Infancy.
- Part V: Summary and Conclusions.

The literature on animal behavior could not be included in the survey nor were the behavior patterns presented primarily by observations on what individuals or a group can do at successive age levels.

The careful limitation of the scope of the work to be undertaken together with the method of acknowledging briefly various contributions but avoiding numerous excerpts and quotations has decided merit. This is particularly true in view of the author's successful assimilation and interpretation of the mass of ideas and observations which have gathered around the development of certain types of behavior typical of the human infant. In a like manner gaps in the present knowledge are indicated. The basic material is presented with a minimum of theoretical speculation and discussion.

The organization of topics is in terms of specific types of behavior in an attempt to show the process of development of activities and to indicate where possible the correlations with growth in the structure of the nervous system and the organism as a whole.

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PEDIATRIC NURSING, by John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine; and Pediatrician-in-chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by Beryl E. Hamilton, R.N., Graduate of St. Luke's Hospital, St. Louis. With 144 illustrations in the text and 7 color plates. St. Louis, The C. V. Mosby Company, 1936, Cloth, Price \$3.00.

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AMERICA'S TOWN MEETING OF THE AIR; HEALTH SECURITY AND THE AMERICAN PUBLIC, by Dr. Michael M. Davis and Dr. Morris Fishbein. Broadcast from The Town Hall, New York, over Station WJZ and Associated Stations; under the Auspices of The League for Political Education, Inc., and the National Broadcasting Company. Edited by Lyman Bryson, Professor of Education, Teachers' College, Columbia University. American Book Company, 88 Lexington Avenue, New York, N. Y., 1936. Pamphlet, Price 10 cents.

## PERORAL ENDOSCOPY AS AN AID IN THE DIAGNOSIS OF DISEASES OF THE BRONCHI AND ESOPHAGUS

(Continued from page 91)

Mosher type of instrument. Esophagoscopy gives information based on direct inspection of the interior of the esophageal lumen. A specimen of tissue can be taken, strictures can be dilated, diverticula can be explored, a foreign body can be removed.

In conclusion, I would say that every patient complaining of symptoms or sensation referable to the esophagus should be given the benefit of every diagnostic measure to determine the presence of actual disease. No esophageal case should be considered completed until after a roentgen-ray study and direct esophageal examination have been made.

Bronchoscopy can be an aid in the diagnosis of all obscure chest conditions after the ordinary methods, generally used, have been exhausted.

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## SOCIETIES

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### PROVIDENCE MEDICAL ASSOCIATION

The regular monthly meeting of the Providence Medical Association was called to order by the president, Dr. William S. Streker, on Monday evening, April 6, 1936, at 8:45 o'clock. The minutes of the last meeting were read and accepted. The secretary read a letter from the secretary of the Rhode Island Medical Society relative to a resolution adopted by the Committee on Medical Economics of the Rhode Island Medical Society "that all members of District Societies are automatically members of the State Society, and that the treasurer of each District Society shall remit to the State Society \$10.00 yearly for each member enrolled to the District Society." No action was taken on this matter.

The standing Committee having approved their applications, the following were elected to membership: Walter James Molony, William Lessel Leet.

The president announced the appointment of Dr. James H. Fagan as chairman of the Medical Subcommittee of the Red Cross Disaster Committee.

The first paper of the evening was read by Dr. Albert H. Miller and was entitled, "Diaphragmatic Respiration Recorded by a Synchronous Pneumograph." The speaker first demonstrated his machine for recording separately but synchronously thoracic

and diaphragmatic respiration. He then exhibited lantern slides showing records of normal respiration and response to stimuli of various sorts. He discussed the various stages of surgical anaesthesia and showed records of types of respiration encountered in surgical operations, especially during the third stage of anaesthesia when there is paralysis of thoracic respiration. He stated that in many surgical operations the diaphragm is doing 10 or 15 times its normal work. The paper was discussed by Drs. M. Saklad, Hayward and Kingman.

The second paper was read by Dr. Roger I. Lee of Boston, Mass., who spoke on "Coronary Thrombosis." He pointed out that the causation is unknown or poorly known. Coronary thrombosis does not usually come out of a clear sky, but occurs in those patients with a history of true or false angina. The E. K. G. taken very early is almost inevitably normal; later it shows characteristic changes. The pain is usually though not necessarily in the chest; it may be in the neck, hand, arm, even in the right hand, in the belly, or there may be no pain at all. There may be all variations in severity from mild to severe, but patients who seem not very sick may die. Prognosis is very difficult. There is no treatment except absolute rest. Digitalis is indicated in congestive failure. Morphia is of great importance. Patients should have bed rest for one month, and take one month getting up and about. The speaker is still convinced of the wisdom of no exercise in the after care. He believes there is no advantage in the complete elimination of coffee, alcohol, and tobacco. The usual sequel is some day congestive failure or sudden death. The paper was discussed by Drs. C. B. Leech, F. B. Cutts and Morein.

The meeting adjourned at 10:50 P. M. Collation was served. Attendance 118.

Respectfully submitted,

HERMAN A. LAWSON,  
*Secretary*

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#### KENT COUNTY MEDICAL SOCIETY

The regular meeting of the Society was held April 9th, at the Elmcroft, Hillsgrove, Dr. Rocco Abbate presiding.

The matter of membership to the State Society was discussed thoroughly. The general consensus of opinion was in favor of the principle of the movement, which was to automatically take into the State Society any new local member. It was

felt, however, that the increased dues would be a definite hardship to a man just starting practice and might be the means of keeping some from enjoying the local society. The matter was therefore tabled indefinitely.

A change in the time of the meeting was discussed and the members are to be sounded out as to their opinion.

The routine business was conducted and the speaker of the evening, Dr. Anthony Corvese, read a very enlightening paper on "Peptic Ulcers, a Ten Year Résumé of All Cases that Came to Operation for Perforation at the Rhode Island Hospital."

G. L. YOUNG, M.D.,  
*Secretary.*

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#### JOURNALS SUBSCRIBED FOR BY THE PROVIDENCE MEDICAL ASSOCIATION DURING 1935

American Journal of Diseases of Children; American Journal of Obstetrics and Gynecology; American Journal of Roentgenology; American Journal of Surgery; American Journal of Syphilis; American Review of Tuberculosis; Annals of Surgery; Archives of Dermatology and Syphilology; Archives of Neurology and Psychiatry; Archives of Ophthalmology; Archives of Otolaryngology; Archives of Pediatrics; Archives of Surgery; Brain; British Medical Journal; Bulletin Institute History of Medicine (Johns Hopkins); Bulletin Johns Hopkins Hospital; Hygeia; Journal of Bone and Joint Surgery; Journal of Experimental Medicine; Journal of Infectious Diseases; Journal of Nervous and Mental Disease; Journal of Pediatrics; Journal of Thoracic Surgery; Lancet; Medical Journal and Record; Military Surgeon; Modern Hospital; Quarterly Cumulative Index; Surgery, Gynecology and Obstetrics; Surgical Clinics of North America.

G. S. MATHEWS, M.D.

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#### REPORT OF PROVIDENCE MEDICAL ASSOCIATION COMMITTEE FOR HARD-OF-HEARING SCHOOL CHILDREN

Your committee has had several meetings. Its members have consulted with Dr. Charles B. Lewis, Director of Health in the Providence Public Schools; Dr. Frank J. McCabe, School Otologist;



Dr. Michael J. Nestor, Providence Superintendent of Health; Father Cassidy of the Parochial Schools, and others.

The paper of Dr. Gordon Berry, as read before us in October and published in the December issue of the RHODE ISLAND MEDICAL JOURNAL, has been a source of information and inspiration.

The following is a brief summary of what we believe constitutes an adequate handling of the problem of the hard-of-hearing children in the Providence schools.

Children in the first three grades should have their hearing tested by spoken voice or whisper. This can be done by the teachers. Pupils showing a defect should be referred to the school otologist.

Pupils from the fourth grade up, at least to the ninth grade, should have bi-annual or annual test of hearing with the 4A phonograph audiometer. The testing should be done by individuals, teachers or school nurses having special training in the use of this instrument.

Children showing a loss of nine or more sensation units in either ear should be re-tested in smaller groups. Those still found defective should be re-tested again. Pupils found subnormal on the final test should be referred to the school otologist.

Permission should be obtained from pupils' parents for the otologist to wipe out ears and remove wax if needed to render satisfactory examination possible.

The otologist should take a history of aural and related troubles, and make and record an adequate examination of the ears, nose, and throat. Further tests of hearing should be made by voice, watch, acoumeter, tuning forks, etc., as necessary in the individual case.

Any child who requires treatment should be referred to a doctor of the family's choice. A copy of the school otologist's examination should be sent with such refers for treatment, at least in the case of those children who will go to a clinic rather than to a private physician.

In addition to searching out the hard-of-hearing pupils and urging their parents to provide indicated treatment the schools should provide special seating in class-rooms and the teaching of lip-reading, in order that these pupils may develop in as nearly a normal manner as possible and progress properly in their studies. For those with almost total loss of hearing we are fortunate in having the Rhode Island School for the Deaf.

We have been glad to learn that the Providence

Public Schools have in operation a well-organized plan for handling the situation as far as available funds have permitted. Previous appropriations have permitted employing an otologist for only a very limited time. Dr. Lewis informed me just recently that arrangements have been made for hiring the otologist's services for a greater number of hours.

We believe, as has been recommended by the school physician several times previously, that lip-reading should be taught in the schools to the considerable number of children needing this help; and we urge that a teacher of this art be employed as soon as possible.

Dr. McCabe and Dr. Lewis have kindly accepted our suggestion that a copy of the otologist's examination be sent when a pupil is referred for treatment.

If an otologist is employed for a really sufficient number of hours, and if lip-reading is taught, the Providence public schools will be providing an adequate service which may well serve as a pattern for other communities.

Our suggestions have been kindly received by those in charge of the health work in the Parochial Schools of the city, and we have urged that the work being done there be enlarged along the lines outlined above.

We have written the secretary of the Rhode Island Medical Society, suggesting that the State Society interest itself in looking into the care of hard-of-hearing children in other schools throughout the State.

Respectfully submitted,

WILLIAM P. BUFFUM

N. A. BOLOTOW

GORDON J. MCCURDY

FRANK W. DIMMITT, *Chairman*

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*Mr. President and Members of the Providence Medical Association.*

The Committee on Care of the Low-Income Group reports its activities thus far:

Two meetings have been held.

The Committee decided that its first step should be to determine, so far as possible, how much "real need" existed in Providence for the medical profession to establish an organized plan to care for the low income group. In other words, whether or no this group, or a large percentage of it, may not already be well cared for and able to meet the cost of such care. The Committee finds much statistical

evidence in answer to this question, from various parts of the country. However, it feels such evidence may not apply to our local conditions and so plans to survey in Providence.

The Committee is informed that the cost of such survey will probably be borne by the Federal Government, through W.P.A. funds. An outline of the Project, as required by W.P.A., is now in Washington, sent and sponsored by Dr. Michael J. Nestor, on behalf of the City Health Department. Government approval of the Project is hoped for and expected, though not assured. Dr. Nestor further offers part-time service of his Assistant, Dr. Elihu Saklad, as Director of the survey. A fairly definite plan, with questionnaire, has been outlined by the Committee. If, and as soon as approval of the survey is received from Washington, the work will begin. The time of its completion is necessarily indefinite, probably several months hence. Meanwhile the Committee proposes to keep the Society informed of progress, since it desires complete co-operation, suggestions and advice from all members. The Committee urges free, open as well as personal discussion on this subject.

Signed for the Committee,

*HALSEY DEWOLF, Chairman*

## ANNOUNCEMENT

Dr. M. A. Chapien announces the removal of his office to 173 Waterman Street, Providence, Rhode Island. Practice limited to Urology.

## OBITUARY

DR. HORACE NEWELL WILLIAMS

Dr. Horace Newell Williams, one of the oldest physicians in the State, died of a cerebral hemorrhage on November 20, 1935, at his home, 198 Broadway, Providence.

Dr. Williams was born at Uxbridge, Mass., on January 2d, 1861, the son of Nicholas B. and Charlotte E. (Newell) Williams. He received his education in the schools of his native town, and after leaving high school entered the Bellevue Hospital Medical College of New York, now a part of New York University. He was graduated from that institution in 1882 with the degree of Doctor of Medicine. The next eighteen months were spent in the Surgical Department of Bellevue Hospital from which he graduated in 1884, from which time he was in active practice in Providence, a period of fifty-one years.

On April 30, 1890, Dr. Williams married Carrie L. Peirce, daughter of Thomas F. and Caroline Rounds Peirce. He is survived by a daughter, Mrs. George R. Cobb, and a son, Francis P. Williams.

Dr. Williams was a member of the Rhode Island and Providence Medical Society, the Society of Alumni of Bellevue Hospital. He was a 32nd degree Mason, belonging to St. Johns Commandery. He also belonged to Palestine Shrine and Scottish Rite. He was a Major in the First Light Infantry Veterans and was always active in that organization.

ALBERT E. HAYES

HARVEY E. WELLMAN

DR. FRANKLIN PIERCE CAPRON

Dr. Franklin Pierce Capron was born in Cumberland, R. I., November 2d, 1852, and died at his home in Providence, December 16th, 1935, after a short illness in his 84th year.

He prepared for college at the old Mowry & Goff School and entered Brown in the Class of 1877. He became a member of Alpha Delta Phi and always maintained a lively interest in that fraternity.

After graduating from Brown, Dr. Capron was graduated by the College of Physicians and Surgeons in New York in 1879.

His first year after graduating from Medical School was spent in general practice. He came to Providence to take up eye, ear, nose and throat as a specialty.

In 1880 he married Hannah Maria Comstock who died in 1925. There was one child by this marriage, the present Mrs. Helen Capron Strickler.

He was appointed Assistant Surgeon to the Eye and Ear Department of the Rhode Island Hospital December 1st, 1880.

On May 6th, 1891, he became Surgeon to the Nose and Throat Service and on the same date Assistant Surgeon to the Eye Service. Dr. Capron retired from the Active Hospital Staff December 7th, 1898, and was appointed Consultant. During the 18 years of his service he gave abundantly of his time and skill.

Dr. Capron was blest with abundant health and enjoyed an active life.

Dr. Capron was a member of the American Academy of Ophthalmology and Otolaryngology, the American Otological Society, and the New England Ophthalmological Association.

HERMAN C. PITTS

EDGAR B. SMITH

## COMMENTS UPON MEDICAL TOPICS

By MALFORD W. THEWLIS, M.D.

*Dangers of Arsenicals.* U. S. Naval Bulletin, 1:59, 1935, discussing arsenical dermatitis observes that more than half the cases had slight disturbances following the injections which preceded the one causing the more serious type of dermatitis. Blood counts are advised on every individual who experiences any type of reaction—to all patients who do poorly under treatment. In the thrombocytopenic type—hemorrhages into the skin and mucous membranes, the blood platelets are diminished. Recovery is the rule. In the granulocytopenic type, there is fever, soreness of the gums and sore throat. As it progresses it looks like septic sore throat. The white count may be less than 1,000. Prognosis is grave. If recovery takes place it is slow. In aplastic anemia the onset is delayed, sometimes as long as a month. The symptoms are a combination of both types just mentioned. The blood shows a diminution of all blood elements. Prevention requires constant observation of every patient who is taking any arsenical. The drug must be prepared and administered in accordance with well established rules. The water should be freshly distilled and sterilized and the drug sifted on the surface of the water and allowed to dissolve without any agitation. The concentration should not exceed 0.1 gram to 5 c.c. of water and the rate of injection should not exceed 0.1 grams in 30 seconds. (Severe reactions, in fact of an alarming nature, may follow the use of arsenicals which have decomposed by being in a hot place. Solutions should be prepared with double distilled water. The ampoule should be submerged in alcohol before using; if there is a crack in the ampoule there is moisture in the powder. There should be no darkening of the product. In some instances where reactions have followed it has been found that the product was several years old and it had been kept in a warm place. The solution should be injected slowly and adrenalin solution should be at hand in case of emergency.—M. W. T.)

\* \* \*

There are many aged patients whose lives would be much more tolerable if they had spectacles and properly fitted lenses. Many cannot get out of their homes to be examined. Others couldn't afford it if they could get out.

\* \* \*

*Aneurysm of the Abdominal Aorta.* Gordon, New Orleans Med. & Surg. Jour., 87:466, Jan., 1935, reports a case of aneurysm of the abdominal aorta simulating a kidney.

A slight fever and leucocytosis help in the diagnosis of coronary thrombosis. The electrocardiogram often does not show typical evidence of the disease for two or three days after the attack.

\* \* \*

Coronary thrombosis without pain has been noted by several authors. At times there is only weakness and dyspnea.

\* \* \*

One cause of coronary thrombosis, often neglected, is sexual intercourse. Many persons after the age of 60 suffer from an attack due to this cause. The old man who marries a younger woman is known to have a good chance to develop coronary occlusion rather soon after his marriage.

\* \* \*

*Deforming Scars.* Jerome P. Webster, The Penn. Med. Jour., 38:929, Sept. 1935, has an article which is worth reading in its entirety. He states that every wound, whether acquired by disease or by accidental or operative trauma, is a potential deformity. This article considers the prevention of these deformities. (Since deforming scars about the face sooner or later reach the plastic surgeon, why not let him suture the wound in the beginning, whenever possible?—M. W. T.)

\* \* \*

Not a bad idea for physicians to follow the work of the Consumers' Research, Washington, New Jersey. Many patients follow this very carefully.

\* \* \*

Rhode Island is in need of organized prenatal clinics.

\* \* \*

*Sacrocoxalgia.* Allegretti, Ill. Med. Jour., 67:37, Jan., 1935, states that epidural injection of saline completely relieved the pain of sacrocoxalgia in 92% of patients. The injection is harmless.

\* \* \*

*Skin Cancer.* A. H. Wolfgang Magnusson of Radium-Hemmet, Stockholm (Acta Radiologica, 1935) states "that extension into the deep tissues is the most important of the factors which affect the curability of skin cancer by treatment with radium. With infiltrating tumors the prognosis seems to grow worse as the size increases, while with superficial tumors the area is not of the same significance. Other factors are of minor importance in comparison with the extent and size of the tumors."





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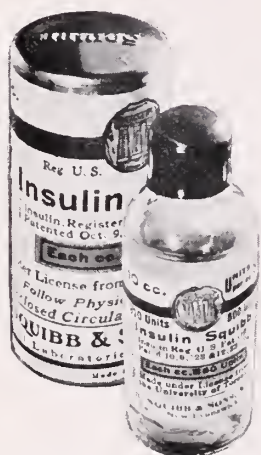
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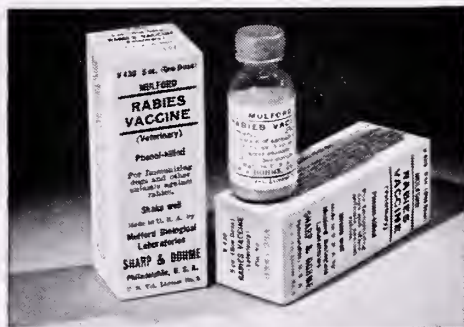
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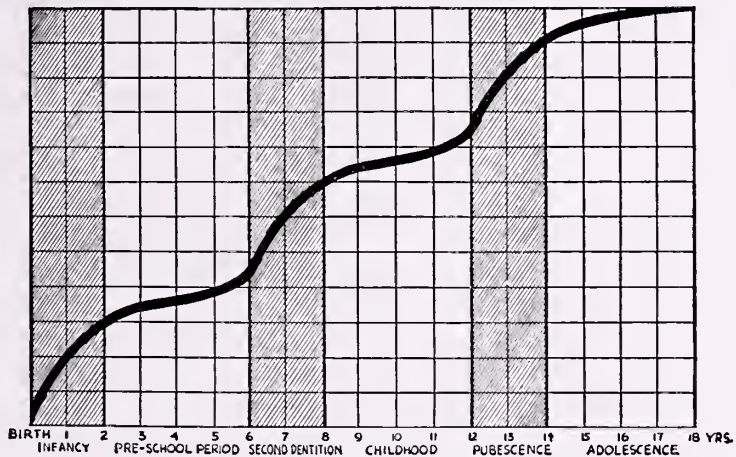
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*C*

# THE RHODE ISLAND MEDICAL JOURNAL

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## THE ANNUAL ADDRESS\*

By ROLAND HAMMOND, M.D.

*President of the Rhode Island Medical Society*  
PROVIDENCE, RHODE ISLAND

Any Society which has experienced the vicissitudes of one hundred and twenty-five annual meetings, must have had a good constitution to begin with, and been blessed with rugged forefathers. It so happens that part of the original Constitution, the Charter, is an integral part of the present Rules and By-Laws and is further evidence of the wisdom shown by our founders.

A study of the old records, from the incorporation of the Rhode Island Medical Society by the General Assembly of this State in February, 1812, indicates the liberal principles and high standards on which this Society was founded, and explains the reason for its survival and its outstanding position and influence in our present day civilization.

A glance at the names of the incorporators denotes that they were prominent citizens of the community as well as the leading physicians of their day. The clear, firm handwriting in the first record book, and the bold signatures of the John Hancock type, in which they subscribed to the Charter and rules of the Society, serve to support this contention.

At this, our one hundred and twenty-fifth annual meeting, and on the occasion of the tercentenary anniversary of the founding of the State of Rhode Island and Providence Plantations, it may be profitable to observe the condition and character of this Society as disclosed in the records at intervals of twenty-five years.

The first meeting was held on April 22, 1812, in the Senate Chamber of the Court House in Providence. Agreeably to the Act of Incorporation which had been passed a few months previously by the General Assembly, the Society proceeded to organize, drafted by-laws, rules and regulations, and elected officers, and appointed committees. It is significant that a Librarian was included in the list of officers, although sixty-six years were to elapse

before any provision was made for the establishment of a library. Forty-nine physicians constituted themselves as charter members.

Meetings were held annually, alternating between Providence and Newport. It was apparently as difficult to assemble the members of a committee at that time as it is today, for we read that "on the 5th of Sept. 1814 the day appointed for the meeting of the Censors of the Northern District no ONE of them was present as per information of the Waiter."

Two orators were appointed to deliver addresses at each annual meeting, followed by a dinner. The annual dues fluctuated between one and two dollars, but the Censors were empowered to collect for the Society ten dollars for each candidate examined and certified.

At the twenty-fifth annual meeting held in Providence June 29, 1836, no especial notice was taken of the quarter century of existence. The Fiske Fund had been established the previous year, and premiums for two essays were awarded at this meeting. There is no record of the membership at this time, but there was probably no appreciable increase in numbers, since a few years later the average attendance at meetings was slightly under forty. In 1846, the By-Laws were altered, as the old phrase reads, to permit semi-annual meetings in June and December.

The fiftieth annual meeting was held in Providence, June 19, 1861, and plans were made for the celebration of the semi-centennial anniversary of the Society a year hence. Dr. David King of Newport was engaged to deliver an oration commemorating the event, but this was not actually delivered until 1863. Quarterly meetings were begun in 1861, and have continued up to the present time. The membership that year was sixty-seven. It was suggested that District Societies be formed, although the Providence Medical Association had already been in existence for thirteen years. At this time the first interest in specialities was noted. Committees were appointed in the Departments of Practical Medicine, Surgery, Obstetrics, with Diseases of Women and Children, and the Collateral Sciences, including Anatomy, Physiology, Chemistry, Microscopy, etc.

\*Delivered at the one hundred and twenty-fifth Annual Meeting, at the Medical Library in Providence, June 4, 1936.



A resolution was adopted for the formation of a Museum of Comparative and Pathological Anatomy, to be located in Providence.

Another resolution was passed for the appointment of a delegate to attend the meetings of other State Medical Societies, particularly those in New England, in order to cultivate friendly relations. Delegates had been appointed to attend the meetings of the American Medical Association since its inception in 1847.

The seventy-fifth annual meeting was held in Lyceum Hall, Providence, June 10, 1886, but no especial observance of the anniversary was made. Dr. Charles H. Leonard, now the sprightly dean of our profession, was Treasurer at the time. The membership of the Society was one hundred ninety-eight.

The Trustees of the Fiske Fund were able to make two awards, each with a premium of \$200.00. The fortunate contestants were Dr. Charles V. Chapin of Providence, and Dr. Hobart A. Hare, of Philadelphia.

At this meeting Dr. William R. White offered a resolution for the appointment of a Building Committee to solicit funds for a building for the use of the Society. This ambition was not to be realized for twenty-five years.

Dr. Horatio R. Storer reported as the only member of a delegation who had been able to attend the meeting of the American Medical Association in St. Louis. He reported an unusually large and harmonious session with evident rivalry as to whether St. Louis or Chicago was to be considered *the* American Medical metropolis. Future meetings were to be held only in the great cities of the Central States.

There was an agitation for the control of local epidemics of the zymotic diseases and Dr. Winsor of Anthony, and Dr. Garvin of Lonsdale, as medical members of the General Assembly, were thanked for their ready and cordial aid in furthering the wishes of the Society.

Dr. Henry I. Bowditch of Boston, delivered an address on "The Past, Present and Future Treatment of Homeopathy, Eclecticism and Kindred Delusions." He presented a wise and sane discussion of a controversial subject which fifty years ago rocked the medical profession to its very foundations.

At the one hundredth annual meeting held in the Normal School, Providence, on June 1, 1911, the chief interest centered in the laying of the cor-

ner stone of the Library Building. The agitation for a home for the Society had been gradually growing insistent during the past quarter century. It was brought to a head three years previously when the Providence Public Library, which had courteously housed the Society's books for many years, notified the officers that these rooms must be vacated by 1912. A Ways and Means Committee was appointed to confer with the Building Committee, a site was selected and purchased, architect's plans were prepared, and generous contributions from Fellows of the Society and laymen were obtained. By transfer of Society funds to the Building Account, all but \$15,000 of the \$50,000 necessary to erect the building was in the hands of the Treasurer, six months after the corner stone was laid. Dr. Frank L. Day, for the Trustees of the Rhode Island Medical Society Building, presided at the exercises.

Addresses appropriate to the occasion were delivered, and with the benediction of the church the corner stone was declared to have been properly laid.

At the annual meeting, held earlier in the day, Dr. G. Alder Blumer delivered the annual address entitled "A Plea for the Medical Library." In a typically Blumerian blend of wit and wisdom he lightly traced the development of our Library to its outstanding position among the medical libraries of the United States.

There was much discussion of the regulation of medical practice and of a bill providing for the creation of a Board of Osteopathy.

The centennial celebration of the Rhode Island Medical Society occupied two days, June 12 and 13, 1912. On the first day an outing was held at Rocky Point with athletic sports and a Rhode Island shore dinner.

In the evening the new Medical Library was formally opened with a reception at which prominent State and City officials, officers of Brown University and leaders in many charitable organizations were present. The reception was a brilliant affair, and gave the public its first opportunity to admire the handsome interior of the new structure.

The one hundred and first annual meeting was the first to be held in the new building. Forty-seven physicians had joined the Society during the year, the largest number in any one year of the Society's existence, except the initial meeting in 1812 when forty-nine physicians associated themselves to found the Rhode Island Medical Society.

The establishment of the J. W. C. Ely Fund by a gift from his son and granddaughter to be devoted to the purchase of current periodical literature on medical subjects was announced.

Dr. Abraham Jacobi delivered the centennial oration on "The Educational Value of Medical Societies and Libraries." Dr. Frederick T. Rogers, the retiring President, in turning over the building and keys to the Society, through the incoming President, Dr. Alexander B. Briggs, said: "Today we begin a new century of medical life with the dream of our forefathers and the hopes of many years of waiting realized in this new and magnificent edifice devoted to the medical profession in this State, a home for this Society forevermore and a permanent housing for its valuable library." He mentioned the generous gift of the stack by Mrs. Gustaf Radeke, the furnishing of the auditorium by the Trustees of the Rhode Island Hospital and the special contributions in memory of deceased Fellows of the Society. The special library room was named "The Horace G. Miller Room" because of his interest in the Society and his generous donation. Dr. John M. Peters, Chairman of the Building Committee, in handing over to the President the trowel with which the first mortar was placed in laying the corner stone, expressed the appreciation of the Society for the tremendous amount of energy and time put into the building of this library by Dr. Rogers, and other members of the committee.

At the annual banquet, for the first time in the history of the Society, the presence of ladies added much to the pleasure of the occasion.

In this brief abstract of former meetings you have observed that many of the problems which give us concern today were likewise the controversies of an earlier period. Had there been time to summarize each of the one hundred and twenty-five annual meetings, together with the semi-annual and quarterly sessions, you would have been struck with the fact that practically every question which is before us today seeking solution, was a knotty problem to our predecessors.

We pass quickly over the intervening twenty-five years, so familiar to many of us in this room today, and pause for sober reflection at the threshold of the second quarter of the second century of our existence as a Medical Society. What are our problems today, and in what manner do they differ from those faced by our predecessors?

The most insistent topic which confronts us at this moment is the question of Socialized Medicine, which is being proposed as a part of the social program of the present national administration. Certain aspects of medical practice, such as the care of crippled children, the aged and the blind, maternal and child welfare, state public health activities, and research in the field of public health and sanitation, are already taken over by the Federal Government under the provisions of the Social Security Act, which is now law. A few strokes of the pen, a few sentences incorporated into this Act, and all phases of medical practice, including health insurance, would have been embodied in this legislation. Had it not been for the strenuous and insistent opposition of organized medicine, as exemplified by the American Medical Association, such an addition would undoubtedly have been made to the present law.

For the purpose of combating such vicious tendencies in legislation, and to acquaint the medical profession and the general public with the actual situation, your president, and our efficient delegate to the American Medical Association, Dr. Guy W. Wells, have visited each of the component District Societies during the past winter and discussed with them the situation as it exists today. We have been received most cordially at every meeting, and much interest has been manifested in the question at issue. Our efforts have been further supplemented by addresses before lay organizations, and one of the radio lectures given in this building during the past winter was devoted to this subject.

The Committee on Education of this Society is now perfecting plans for State-wide talks by physicians before civic clubs, women's organizations, parent-teachers associations, and patriotic and other groups, for the purpose of acquainting the general public with the true significance of socialized medicine. This program will not reach its peak of accomplishment before next winter.

In the past we have devoted too much time and effort in attempts to combat vicious legislation, after such bills have been introduced in the General Assembly, and when powerful lobbies are exerting political pressure for their passage. At once there arises a cry of protection for medical interests, and our efforts are vilified and held up to ridicule. This is not the way to deal with the problem. We should rather devote our energies to the public itself, educate them, and show them the fallacies of these socialistic movements.



This instruction may be accomplished in various ways. Our efforts by means of popular talks over the radio and by addresses delivered by physicians before civic organizations have already been indicated. Another powerful instrument for disseminating helpful propaganda is through the medium of an influential newspaper. We can reach the thinking portion of the public by carefully prepared articles in the daily press, and at the same time do no violence to our code of professional ethics. Publicity of the right kind is the goal we should seek, for we have too long hidden our light under a bushel.

The profession of medicine is the custodian of the accumulated knowledge in medicine and should use it for the benefit of the community. This knowledge, technical in nature, and developed by experience, can be interpreted to the body of the people only by persons educated to understand it and trained to apply it. No one but the doctor of medicine can fulfill these requirements. We should not hesitate to assert our claims of superiority in the field of medicine, and our responsibility as guardians of the health of the public.

But our liability does not end here. Our most effective means of education lies in our daily contact with patients and families in home and office practice. It is the duty of every one of us to introduce discussion on the subject of socialized medicine or to answer questions propounded by seekers after the truth.

If we are but convinced of the soundness of these arguments, we have only to put our shoulder to the wheel, and the profession of medicine by its very inherent strength, will rise again to the proud position of leader among the learned professions. The weapons necessary for the battle are publicity and organization. The former we have already discussed; the latter seems so self-evident, if only as a means of mutual protection, that it should be unnecessary to call it to your attention. The accomplishments of bodies like labor unions, the grange, large corporations, Veterans organizations, and political parties, are all attributable to their organization and solidarity. In the plan of organized medicine in the United States from the component district organizations through the constituent State societies and including the national association, we have all the elements of a similar successful campaign. These benefits are of so much value that no medical man can afford to be without the pale of membership.

The test of ability and integrity should not be "Is he a graduate of this college or associated with that hospital?" but "Is he a member of the State Society?" From membership in the State Society he should seek to associate himself with the national body. The necessity for strengthening the forces of organized medicine has evidently appealed to the medical profession of this country as a whole, for during the past year the membership of the American Medical Association has increased by nearly 4,500, and 2,000 of these names have been added to the rolls since March first of this year. This gives a high record for all time of 103,241 members.

Let the physician whose membership is confined to his District Society, consider thoughtfully his obligations. The State Society and the national body are employing their funds and the energies—I might say the life blood—of their Fellows, in a battle to protect the rights of the public and the privileges of the medical profession of this country. Except for a few salaried officials, that time and effort is freely given without thought of reward or desire for recompense. The benefits secured to the entire medical profession by these labors in the vineyard may be compared to the benefits received from liability insurance. Should we expect anyone but ourselves to pay the premium on our policy? The answer is No.

Ten years service as your delegate to the American Medical Association has convinced me beyond the shadow of a doubt that the legislative body known as the House of Delegates, is an accurate cross section of the medical profession of the United States, and that its deliberations are concerned only with what is for the best interests of the public and the medical profession.

Neither is it true that these delegates are a group of venerable gentlemen, who are not conversant with the problems of this present day and generation. Their conclusions, reached after mature thought and deliberation, have almost universally withstood the test of time and experience. At the recent Kansas City meeting of the American Medical Association, the leaders of the profession in the United States reiterated their belief that we must adhere to the sound principles on which the practice of medicine was founded, keep faith with the public, and cleave to the traditional obligations of the profession. Any legislation for the public good is synonymous with the welfare of the medical profession.



In considering the perplexing question of socialized medicine we must appreciate the two divisions of medical practice—the geographic and the institutional. The former represents the method under which medical services to all the people have been rendered in the past, i.e., a sufficient number of physicians minister to the medical needs of a certain geographic area. The institutional plan is one which has grown up in a more thickly populated district, and centres around a medical school, hospital clinic, or industrial plant. Such practice is necessarily restricted in its ability to expand and it is difficult to understand how such a scheme of medical service could ever adapt itself to the requirements of a widely distributed clientele.

In keeping with the times and in an effort to be of real service in attempting to solve the vexing problems of the costs of medical care, the medical profession of this country has been evolving plans for the treatment of low income groups. Over 3,000 such plans have been formulated and 378 such projects are receiving serious study by the Bureau of Medical Economics of the American Medical Association. Many systems are already in operation, notably the Wayne County and Washington plans, with varying degrees of success. Each section of the country must work out its problem, adapted to the conditions existing in the local community. Rhode Island has not been backward in this regard, and efficient committees are studying the question in all its angles. A survey of several large industrial plants is being made to determine the income levels, and in order to ascertain what proportion of the employee's earnings may properly be budgeted for the expenses of illness. In this country at large 5% of the family income is allotted for medical services.

The results of this survey are problematical. It is possible that after all available information has been collected, the committee will decide that no departure from the established method of procedure is advisable. On the other hand, some important changes in dealing with the economic questions involved, may be recommended. It is probable that only a small percentage of the population will require special consideration under any insurance or partial payment plan. At present only 1.3% of the public are operating under any such scheme.

One fact stands out preeminently. No scheme should for one moment receive serious consideration, which would seek to discard the age-old experience of the professional relationship between

physician and patient, because of a temporary emergency induced by an economic depression. Unwise meddling with a system of practice built up through the centuries by trial and error, will result only in confusion for the patient and calamity for the medical profession, and the disaster would endure long after the crisis had passed away.

No scheme for group hospitalization should receive attention, which fails to take the doctor into account.

Group hospitalization by its very name connotes that the relationship is one of direct arrangement between hospitals and groups and that hospital care alone is the service bargained for. Group hospitalization, then, is a plan whereby a hospital or an association of hospitals contracts with classified groups of people to furnish hospital care when needed in return for the periodic payment or prepayment of a stipulated sum by each member of the group. A bona fide group hospitalization plan, as defined, should exclude all professional or medical services of physicians or surgeons, pathologists, roentgenologists, anesthetists and special nurses. The control of the service provisions and membership funds should be in the hands of those who can render the service, viz: the hospitals or an association properly representative of the hospitals and the medical profession.

At the recent session of the General Assembly in this State, considerable legislation providing larger benefits to injured employees and more equitable remuneration to physicians has been passed. The vexing question of compensation for occupational diseases is on its way to a satisfactory solution.

We must continue our efforts to secure the passage of beneficial legislation and the defeat of vicious laws. We must work until we have achieved the enactment of a Basic Science law. It is only by such measures that the activities of the cults and irregular practitioners can be restricted. It is futile to attempt to convince a legislator of the absurd claims of some sectarian group, particularly if his own pains have been alleviated while under such treatment.

Physicians should have more voice in the administration of hospitals, either by election to the governing body of trustees, or by appointment to committees which are influential in affecting the administrative policy of the institution.

Many other problems or pressing for solution,

but the more vital questions have been suggested as the goal toward which we must aim.

The doctor has always been regarded as an easy mark, but this failing is his source of strength, as well as his weakness. Our profession has been altruistic from its inception, and it is the oldest science in the world, except astronomy. No matter how much we may try to improve our economic status, the humanitarian viewpoint must always be uppermost in our thoughts, for the reason that if we lose the confidence of the public we lose our greatest asset. "The physician must ever sail the boat which he is not allowed to beach."

If we are all willing to work for the advancement of our profession, in its economic as well as its scientific aspects, we shall see it rise, like Phoenix, from the ashes to renewed strength, and to occupy an enviable position in our present day civilization.

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#### ADDRESS OF THE GOVERNOR THEODORE FRANCIS GREEN

At the Rhode Island Medical Society Dinner  
June 4, 1936

It is a pleasure for me to be with you upon your celebration of the 125th meeting of the Rhode Island Medical Society. In these days the bonds between the State of Rhode Island and medical practitioners in general, and your Society in particular, are peculiarly strong. This is not in itself remarkable. All of us, of whatever profession, have been drawn more closely together in the common causes of the past few years. The world, if we look about it, seems still to exhibit its rather embarrassing quota of man's inhumanity to man; but I think no one can claim that society has ever, anywhere, taken its responsibilities more seriously than the United States—both as a federation and as independent states—in connection with the rehabilitation of this very sick nation.

The seriousness of our endeavors has been marred, of course, by political disagreement. Our experiments have been more radical than some groups would allow, and far less radical than other groups approve. Human and frail as we are, it is a wonder we have not blundered far more than we have. The colossal task of caring for millions of unemployed, of seeking to readjust economic factors in the process of reemployment, and to absorb the always maturing youth of the nation—that task

has been no overnight one. Rome was not built in a day—nor rebuilt, either; and the problems of reconstruction are still unfinished.

Nevertheless, we have tried and we are still trying to solve them; and in these experiments we have been—in spite of disagreement, dissension and even reaction—more generally united than we have ever been except in times of war. This, too, has really been a war: in many ways a more desperate war than man has to fight on actual fields of combat.

Not the least important figure in this war against depression is the man of medicine. You doctors do not need to be told that you are noted not only for your high fees but as well for your generosity. For every case which brings a doctor a large check, there are many which bring him only small ones, or none at all. And when so widespread a calamity as we have experienced strikes society, the calls upon a physician's generosity and patience immediately increase.

Here in Rhode Island I think we have handled medical relief with noteworthy success. You will remember that at the termination of CWA in April, 1934, the State Unemployment Relief Commission, together with the Federal government and cities and towns, took care of a medical and hospitalization program which the government at Washington had formerly financed 100%. In order that relief clients might receive the best of medical care, I asked the Rhode Island Medical Society to prepare a plan and this was approved by the commission. Your society was then asked to recommend a physician to be medical director under that plan and the doctor recommended was appointed by the commission. The reasons for this appointment were numerous, but they may be summed up by saying that such a directorship was essential if we were going to keep medical relief in order. Above all, the State was anxious that, on the one hand a relief patient should have a free hand in his choice of physician, and that on the other hand doctors might practice without any dictation from the State. Adequate medical attention, guaranteed and unhampered, was what we all desired.

Our Social Service Division has worked with the Medical Director and the doctors in every way possible. The case workers were given to understand, in plain terms, that whenever medical problems came to their attention they must direct the client to call his family physician. This was a part



of the plan sponsored and approved by the Medical Society and adopted by the commission. The plan is excellent in that it gives the relief client the same medical care he would receive as a paying, private patient. The Medical Plan is specific—a virtue, you will agree, in such work as this. Among its important rules is the fee schedule which serves as a guide for all doctors in submitting their bills for service. It even recommends the number of calls in chronic cases.

The Hospitalization Plan previously adopted has been accepted by all hospitals throughout the State. Allowing two dollars a day for cases of relief clients, it made another step forward by easing the burden of relief borne by the various hospitals. Take for example, the matter of x-rays. Many x-ray photographs were necessary. Hospitals requested a meeting to discuss payment for such x-rays. Their representatives met with the Medical Director and the Secretary of the Commission. A schedule of rates was drawn up and approved.

And as for figures? Well, during 1935 doctors' bills amounted to \$164,104, and hospital bills to \$100,965. Those figures speak pretty strongly as proof of the collaboration between the State of Rhode Island and the physicians.

We cannot hope, under extraordinary circumstances, to maintain conditions of complete satisfaction in these matters. In a world that is, we must confess, something less than perfect, we are laboring in subnormal times. Nonetheless, we have approximated proper health guarding and maintenance. We have, I submit, approximated that far more nearly than many of us may have expected. And our thanks go to you for your share in bringing this about!

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#### RUFUS HERBERT CARVER, M.D.\*

Dr. R. H. Carver, a member of the Providence Medical Association since 1874, died at his home, 8 Somerset Street, Providence, on December 30, 1935, in his 87th year. He had been in retirement since 1923 and in failing health for the last several years.

Rufus Herbert Carver was born in Taunton, Mass., January 22, 1849, the son of Charles H. and Sarah Deborah Bliss Carver. He graduated from the Taunton High School in 1866 and, in 1867, began the study of medicine with Dr. Silas D. Presbrey of Taunton as Preceptor. In 1870, he

graduated from Harvard Medical School and in May of that year opened an office in Providence. In 1874, Dr. Carver became associated with Dr. George Capron and Dr. Thomas Perry, who were the leading obstetricians in the State and who had a very large practice. He remained with them for four and a half years and then opened an office for himself on Aborn Street, afterwards moving to Broad Street and finally to Somerset Street.

Dr. Carver was a member of the American Medical Association, the Rhode Island Medical Society, the Providence Medical Association, the Clinical Club, the Old Colony Historical Society of Taunton, and the Rhode Island Society of the Sons of the American Revolution. He had also been a member of the Providence Central Club and of the Rhode Island Yacht Club. In the latter organization he for many years held the office of Fleet Surgeon. He was Visiting Physician to the Providence Lying-In Hospital from its opening in 1884 until 1916, when he resigned this position and was then appointed Consulting Physician. He was also a member of the Board of Trustees from 1912 to 1921.

He was a member of the Consulting Staff and of the Corporation of the Rhode Island Hospital. He was unmarried, and his only close survivors are two sisters.

This bare recital of the facts of Dr. Carver's life gives but a slight idea of the man as he was known to his colleagues. Having in his early years the good fortune to be associated with Drs. Capron and Perry, he was naturally attracted to Obstetrics and gained a vast amount of experience through that association. While he was always in the general practice of medicine, for many years he was the leading consultant in Obstetrics in the community. Although he began his work before the aseptic era he kept abreast with the progress in Obstetrics and accepted and practised the new methods. He was an inspiring teacher, always ready and eager to give of his knowledge and experience to the younger men. He was a most skilful operator, especially in the use of the obstetric forceps in which he had no superior. It is unfortunate that he kept no records of his patients. It is impossible to know how many deliveries he attended but the number must be great.

On reaching the age of 75, having been in active practice until that time, he quietly and gracefully retired, still, however, retaining his interest in Obstetrics and the Lying-In Hospital. On the opening of the new hospital building, in 1926, he had the honor of delivering the first baby born there. This was a fitting climax to a long and impressive medical career.

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\*An Obituary prepared by H. G. Partridge, M.D., and Pearl Williams, M.D., and read before the Providence Medical Association, February 3, 1936.



## THE RHODE ISLAND MEDICAL JOURNAL

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## THE ANNUAL MEETING

Eighty-eight per cent. of the fellows who returned their ballots voted in favor of a two-day annual meeting of the Rhode Island Medical Society. The success of the 1936 meeting on June 3 and 4 justifies their decision. On Wednesday morning clinics were held at Butler Hospital, The Memorial Hospital, Providence Lying-In Hospital and St. Joseph's Hospital. The largest attendance for this morning was at The Memorial Hospital where, besides members of the staff, 89 guests registered, making a total of 110. On Thursday morning clinics were held at Charles V. Chapin Hospital, Homeopathic Hospital of Rhode Island, Miriam Hospital and Rhode Island Hospital. At the last named hospital more than 200, including 128 guests, were present. These meetings demonstrate the value of the clinical material which is present in Providence and Pawtucket. The clinics were interesting and instructive. They began and ended promptly. Through courtesy of the management of the several hospitals an excellent luncheon was served to all who had registered for the clinics.

The program of the meetings in the Medical Library, Wednesday afternoon and evening and Thursday afternoon, included several papers by members of the society, each remarkable as a presentation of original and unpublished work. A History of the Rhode Island Hospital by John M. Peters was a valuable contribution to local medical history. Guest speakers included Olin West, Secretary of the American Medical Association, Albert M. Snell of the Mayo Clinic, Dean Lewis of Johns Hopkins University and Hospital, and Wilder Penfield of Montreal. Mention of the names of these speakers indicates sufficiently the interest and value of the addresses which they gave. The scientific program concluded with the Annual Address by the

President, Roland Hammond, and induction of the newly elected officers.

Throughout the two-day meeting the scientific and commercial exhibits were a source of constant interest. This personal contact between members of the society and advertisers in its JOURNAL is of mutual benefit. It was a special pleasure to meet again some detail men who had not visited Providence in recent years. We missed an exhibit by medical book publishers who neglected this opportunity for contact with the profession. The exhibits occupied every available part of the Medical Library—the rear of the auditorium, the reading room and the dining hall. Wednesday supper, through the courtesy of the Rhode Island College of Education, was served in their building across the street from the Medical Library.

The Annual Dinner, a traditional Rhode Island clam bake served at the Pomham Club, under the supervision of the Anniversary Chairman, Herbert E. Harris, and the Committee on Arrangements, was received not only with enthusiasm but likewise with more than usual decorum. Two hundred ninety-nine fellows and guests registered for the Annual Dinner.

A. H. M.

## CLINIC DAYS

Two years ago the Rhode Island Medical Society inaugurated a clinic day in conjunction with the annual meeting. The purpose was to vary the program by holding clinics at the various hospitals on one day and follow with the didactic presentation of papers the following day. The results to date are very gratifying.

In Pawtucket the Memorial Hospital, an institution considered small because of a 160-bed and 30-basinet capacity, with a daily registration of 139 patients, has been very successful in the "clinic day." The Memorial Hospital through the alumni association initiated the idea of a clinic day five years ago. The attendance increases each clinic day, which is evidenced by the registration. The success is further spelled by the attendance of chiefs of some of the large metropolitan hospitals—by out of state visitors and by harmonious co-operation and collaboration of all departments in presentation of the usual and unusual, the ordinary and the extraordinary cases.

The modus operandi of the clinic day at the Memorial Hospital is as follows: There are two clinic days annually—the R. I. State Society day in

the spring and the alumni clinic in the fall. The heads of the departments arrange the program so there is no duplication of cases. The visiting and associate staff is assigned cases which are selected and weeks are spent in preparation of these cases. The program hour for each department is arranged. The convenient hours for group attendance are rotated yearly so there is no conflict in major clinic presentation and no preference shown any particular department.

Finally, before the actual day a conference is held—each head with his associates and the program presentation discussed and completed. A chief of a department from the Lahey Clinic who attended the last clinic day was asked why he attended our clinics; because of the completeness of detail in presentation was the answer.

The registration of attendance this year was 110 at the R. I. Medical Society Clinic. The registration at the last alumni clinic at the Memorial Hospital was 251.

THAD. A. KROLICKI, M.D.

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### CLEAN BATHING BEACHES

Public attention is being drawn to the pollution of waters by city sewage. This is a condition that has existed for so many years that the public has become indifferent to it until recently it is realizing that the continued pollution renders bathing unsafe when such bathing is close to discharging material. Also shell fish whose grounds are subject to these discharges are rendered unsafe.

The only solution to this very undesirable condition is sewage disposal plants. It is true that this involves a great deal of expense and there are certain locations where it is practically impossible to establish them, but where it can be done the investment is justified.

Bathing beaches should be, so far as is possible, rendered free from contamination so that the bathers can, without hesitation, indulge in this healthful exercise.

As for possible contamination of oyster beds, that is a menace that is very insidious and every effort should be instituted to prevent this unhealthy condition. Eventually the public will be aroused to the point where there will be an insistence on the establishment of sewage disposal plants, and then this matter of expense will not be considered prohibitive.

E. V. M.

## RHODE ISLAND MEDICAL SOCIETY

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### Minutes of the One Hundred and Twenty-fifth Annual Sessions

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#### Meeting of the Council

The annual meeting of the Council was held at the Rhode Island Medical Library on May 20, 1936, at 4 P. M., and in the absence of the President, Dr. Roland Hammond, and the Vice President, Dr. J. E. Donley, Dr. W. C. Rocheleau, 2nd Vice President, presided.

The minutes of the previous meeting having been published, it was voted that the reading of same be omitted.

The report of the Treasurer as rendered herewith being duly examined by the auditors was accepted and approved, and referred to the House of Delegates for its approval and adoption.

It was voted that the back dues of Dr. W. W. Hunt, and Dr. A. W. Calder, both of whom have reached the age of retirement, be remitted and that they be placed on the retired list and continued as Fellows of the Society without payment of dues. It was voted that the question of the other Fellows in arrears be carried over to the November meeting of the Council.

It was voted to lay upon the table consideration of increasing the amount of reimbursement of the delegate to the American Medical Association for expenses incurred in attending the annual meeting of the A. M. A.

The following motion was introduced at the request of the Chairman of the Library Committee: "That a book case, which may be securely locked, be procured for the safeguarding of various valuable books, now kept on open shelves in the Library."

The motion was laid on the table pending further information from the Committee on Library as to the type of book case, the probable expense thereof, and the proposed place of installation of the book case.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*

## REPORT OF THE TREASURER

## COMPARATIVE STATEMENT FOR 1935

Jan. 1, Chase Wiggin Fund	\$6,892.21	\$6,892.21
Jan. 1, H. G. Miller Fund	\$5,609.10	\$5,609.10
Jan. 1, J. W. C. Ely Fund		
May 27, Sold Southern California Edison	\$1,051.25	
Accrued interest 4 mo. 27 days	20.42	
	\$1,071.67	
May 27, Purchased Rhode Island Public Service Pfd.	\$1,071.67	
Rhode Island Public Service Co. Interest	37.00	
Interest Jan. 1935 Southern California Edison	25.00	
8 Shares Mechanics National Bank Stock	480.00	
Interest in default		\$1,613.67
Jan. 1, Endowment Fund		
2,000 Oklahoma Gas & Electric Co. 1st Mort. 5%	\$1,920.00	
Interest	100.00	
Peoples Savings Bank	2,731.76	
Bank interest	70.16	\$4,821.92
Jan. 1, Printing Fund	\$1,677.52	\$1,677.52
Jan. 1, E. M. Harris Fund		
2,000 A-NY & B-NY Realizing Corp. Debentures 5½%	\$2,000.00	
4 Shares stock A-NY & B-NY Realizing Corp.		
Interest in default		
2,000 General Public Utilities Co. 6½%	1,980.00	
Interest	156.00	
1,000 Central Arizona Light & Power Co. 5%	962.50	
Interest	50.00	\$5,148.50
Jan. 1, Frank L. Day Fund		
3,000 Canadian National Railway Co. 4%	\$2,979.75	
Interest	135.00	
Industrial Trust Company	364.96	\$3,479.71
Jan. 1, Herbert Terry Fund		
2,000 Missouri Public Service Co. 5%	\$2,003.10	
Interest, February	50.00	
Balance on hand	460.40	\$2,513.50
Dec. 10, Sold Missouri Public Service Co. 5%	\$1,154.17	
Purchased 96 shares Providence Gas Co.	1,152.00	
Balance from sale and purchase	\$2.17	
Jan. 1, James R. Morgan Fund		
500 Missouri Power & Light Co. 4½%	\$441.38	
Interest	22.50	\$463.88
Jan. 1, James H. Davenport Fund		
1,000 Monongahela West Penn Public Service 5½%	\$1,027.19	
Interest	55.00	
Balance on hand	254.53	\$1,336.72

Dec. 10, Called for redemption:

Monongahela West Penn Public Service 5½%	\$1,050.00	
Accrued interest	19.55	
	\$1,069.55	
Purchased 89 shares Providence Gas Co.	1,068.00	
Balance from sale and purchase	\$1.55	
Jan. 1, Cataloguing Fund		
Peoples Savings Bank, Clinical Conference Fund	\$526.88	
Interest	5.71	
Prov. National Bank Checking Account	72.01	
Gifts received	116.63	\$721.23
Jan. 1, Participation Account		
Prov. Institution for Savings	\$526.66	
Interest	13.24	\$539.90

## 1936

Jan. 1, Chase Wiggin Fund	\$6,892.21	\$6,892.21
Jan. 1, H. G. Miller Fund	\$5,609.10	\$5,609.10
Jan. 1, J. W. C. Ely Fund		
Rhode Island Public Service Co. 8 Shares Mechanics National Bank stock	\$1,071.67	
Paid Rhode Island Medical Society for JOURNALS	480.00	
	62.00	\$1,613.67
Jan. 1, Endowment Fund		
2,000 Oklahoma Gas & Electric Co.	\$1,920.00	
Peoples Savings Bank	2,901.92	\$4,821.92
Jan. 1, Printing Fund	\$1,677.52	\$1,677.52
Jan. 1, E. M. Harris Fund		
2,000 A-NY & B-NY Realizing Corp. Debentures	\$2,000.00	
4 Shares stock A-NY & B-NY Realizing Corp.		
2,000 General Public Utilities	1,980.00	
1,000 Central Arizona Light & Power Co.	962.50	
Paid R. I. Medical Society for repairs on building	206.00	\$5,148.50
Jan. 1, Frank L. Day Fund		
3,000 Canadian National Railway Co.	\$2,979.75	
Paid for Medical Books	68.48	
Industrial Trust Company	431.48	\$3,479.71
Jan. 1, Herbert Terry Fund		
2,000 Missouri Public Service Co.	\$2,003.10	
Paid Rhode Island Medical Society for JOURNALS	29.50	
Balance on hand	480.90	\$2,513.50
Jan. 1, James R. Morgan Fund		
500 Missouri Power & Light Co.	\$441.38	
Paid Rhode Island Medical Society for Expenses	22.50	\$463.88



Jan. 1, James H. Davenport Fund		
1,000 Monongahela West Penn Public Service .....	\$1,027.19	
Balance on hand .....	309.53	\$1,336.72
Jan. 1, Cataloguing Fund		
Expenses for Year Jan. 1, 1935- Jan. 1, 1936 .....	\$396.49	
Peoples Savings Bank .....	132.59	
Prov. National Bank, Checking Account .....	192.15	\$721.23
Jan. 1, Participation Account		
Prov. Institution for Savings .....	\$539.90	\$539.90

## RECEIPTS

Cash on hand January 1, 1935 .....	\$ 482.89
Annual Dues .....	4,363.76
Donations .....	805.14
Harris Fund .....	206.00
Terry Fund .....	52.17
Davenport Fund .....	56.55
Ely Fund .....	62.00
Morgan Fund .....	22.50
Exhibits, Annual Meeting .....	300.00
Outstanding Check .....	1.65
	<hr/>
	\$6,352.66

## EXPENDITURES

Collation and Annual Dinner Expenses .....	\$ 999.00
Expenses of Secretary (Secretary service, etc.) .....	110.58
Printing and Postage .....	149.75
Gas .....	48.72
Electricity .....	97.40
Fuel .....	591.50
Telephone .....	125.33
City Water .....	15.65
House Supplies and Expenses .....	423.31
House Repairs .....	272.35
Librarian .....	1,660.00
Janitor .....	720.00
JOURNALS, Ely and Terry Funds .....	74.00
Safe Deposit .....	6.60
Treasurer's Bond .....	25.00
Dues, Medical Library Association .....	10.00
Delegate, American Medical Association .....	100.00
Folding Chairs .....	81.75
Sunday Lectures .....	134.48
Federal Tax on Checks (Dec. 1934 only) .....	.36
	<hr/>
	\$5,645.78
Cash on Hand to Balance .....	706.88
	<hr/>
	\$6,352.66

Respectfully submitted,

J. E. MOWRY, M.D., *Treasurer*

Examined and found correct, May 15, 1936:

FRANK H. MATHEWS

ADOLPH W. ECKSTEIN

## Meeting of the House of Delegates

The annual meeting of the House of Delegates was held at the Rhode Island Medical Library on May 20, 1936, at 5 P. M., and in the absence of the President, Dr. Roland Hammond, and the Vice President, Dr. J. E. Donley, Dr. W. C. Rocheleau, 2nd Vice President, presided.

The next order of business being the election of officers and standing committees, the Vice President, Dr. Rocheleau, called upon Dr. C. S. Christie, a member of the Nominating Committee, to present candidates of their selection. The following names were presented by the Nominating Committee, and there being no counter-nominations from the floor, on motion made and duly seconded, it was voted that the Secretary be instructed to cast one vote electing the candidates as proposed by the Nominating Committee:

President: J. E. Donley.

1st Vice President: W. C. Rocheleau.

2nd Vice President: J. W. Leech.

Treasurer: J. E. Mowry.

Secretary: Guy W. Wells.

Committee on Arrangements: H. A. Winkler, Chairman; R. R. Baldrige, F. W. Dimmitt, Treasurer ex-officio.

Committee on Legislation: H. E. Harris, Chairman; C. H. Holt, C. F. Gormly, President and Secretary, ex-officio.

Committee on Library: J. G. Walsh, Chairman; Eric Stone, Wilfred Pickles.

Committee on Publication: L. C. Kingman, Chairman; H. C. Messinger, C. S. Christie, President and Secretary, ex-officio.

Editor of the Journal: Frederick N. Brown; Business Manager, C. W. Skelton.

Committee on Education: R. S. Bray, Chairman; J. F. Kenney, George L. Young, President and Secretary ex-officio.

Committee on Necrology: J. E. Ruisi, Chairman; H. L. Emidy, C. H. Woodmansee.

Auditor 2 years: F. B. Littlefield.

Curator: C. D. Sawyer.

A verbal report of the meeting of the Council immediately preceding this meeting of the House of Delegates was presented by the Secretary, and it was voted that the Treasurer's report be accepted and placed on file.

### Secretary's Annual Report, May 20, 1936

I submit herewith the annual report of the Secretary in review of the activities for 1935-36, and upon the present state of the Rhode Island Medical Society.

The Council met November 21, 1935, February 19, 1936, and in special meeting on January 2, 1936. The House of Delegates met on November 21, 1935, and February 19, 1936, and in special meeting on March 20, 1936. The Society has held its usual quarterly meetings in September, December, and March.

The question of changes in the By-Laws whereby changes in the number and dates of the meetings held by the Society might be brought about, was laid upon the table at the November meeting of the House of Delegates for one year.

The membership roll of the Society shows a net gain of 23 members over last year, and at present shows the following:

Active	488
Non-resident	18
Honorary	5

The following Fellows have died since the annual meeting of 1935:

John W. Keefe  
 Julian A. Chase  
 Francis J. Higgins  
 Horace N. Williams  
 Franklin P. Capron  
 R. Herbert Carver  
 Edward J. Logan  
 Virgil H. Danford  
 John Ridlon

The increase in the roll of members this year is, I believe, due to the closer liaison and cooperation of the District secretaries established with this office, which it is to be hoped will continue and increase.

The annual visitation of the President to the District Societies has been resumed by Dr. Hammond, and has proved to be a valuable method of contact between the State, and District Societies. Furthermore, our delegate to the A. M. A. has accompanied the President on these visits, and thus the relationship of District, State and National medical societies has been rendered closer.

The problems confronting the medical profession are no less pressing than they have been in the past five or six years. The economic disturbances have made all walks of life conscious of

restricted incomes, and the physician has certainly not been exempted. I believe the economic situation of the medical profession should be made known, and I know of no more direct way than by cooperating with the U. S. Department of Labor in its survey of physicians' incomes as was pointed out again this year in the April number of the RHODE ISLAND MEDICAL JOURNAL. If the fact of changes in physicians' incomes is known to responsible officials of the government, and available to less responsible agitators against the medical profession, there will be certainly less likelihood of legislation inimical to the profession. I would, therefore, again urge the Fellows to send to the Secretary an anonymous statement of their income change as suggested in the letter in the April number of the JOURNAL.

This is the twentieth and the last annual report as Secretary, I am privileged to make to this body. In relinquishing the office of Secretary, I do so with the pleasantest memories of the whole-hearted support and cordial cooperation extended me over these many years by the officers, by the delegates and by the entire Fellowship of the Rhode Island Medical Society.

I am, indeed, deeply in the debt of this Society for the great honor it has paid me in the Secretaryship of this Society.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*

### The Annual Meeting

The 125th annual meeting of the Rhode Island Medical Society was held on June 3rd and 4th, 1936, in Providence, R. I.

The mornings were devoted to clinics at the following hospitals: Butler Hospital, Pawtucket Memorial Hospital, Providence Lying-In Hospital, St. Joseph's Hospital, Charles V. Chapin Hospital, Homeopathic Hospital of Rhode Island, Miriam Hospital, and Rhode Island Hospital. These clinics were arranged by the Committee on Clinics: Chairman, Charles O. Cooke, Bertram H. Buxton, Frank E. McEvoy, Albert H. Miller, John F. Kenney, Dennett L. Richardson, Robert H. Whitmarsh, Arthur H. Ruggles, and were well organized and conducted, providing an interesting and instructive group of clinics in practically all the fields of medical practice.

The scientific session was called to order by the President, Dr. Roland Hammond, at 2 P. M. at the Medical Library.

A condensed report of the meeting of the House of Delegates held on May 20th was presented by the Secretary.

The following delegates from other State Medical Societies were present and extended congratulations of their respective Societies to this Society on its 125th anniversary: Dr. Benjamin E. Sanborn, Manchester, N. H.; Dr. Edward L. Merritt, Fall River, Mass.; Dr. Milo P. Rindge, Madison, Conn.

The report of the Trustee of the Fiske Fund was presented by the Secretary of the Trustees, Dr. Wilfred Pickles. As none of the essays submitted for 1936 award were, in the judgment of the Trustees, of sufficient merit to warrant awarding of the prize, it was voted by the Trustees not to award any prize for 1936. The subject of the essay to be submitted for 1937 is "Newer Method in Treatment and Prevention of Acute Anterior Poliomyelitis." It was voted to accept and place on file the report of the Fiske Fund.

Dr. John Langdon, Chairman of the Committee on Necrology, presented his report on the death of members since the last annual meeting.

In the absence of His Honor, Mayor James E. Dunne, Mr. Walter F. Fitzpatrick, City Treasurer, extended the felicitations of the City of Providence upon the Society's 125th birthday, and welcomed to the city the out-of-town members, and delegates to the City of Providence.

On motion of Dr. J. E. Donley, seconded by Dr. Wilfred Pickles, it was moved that a vote of appreciation be extended to Dr. James W. Leech for his long, faithful service as Secretary of the Rhode Island Medical Society for the past 20 years, from which office he is retiring this year.

The following commercial exhibits made an interesting part of the meeting:

August Bakery  
Beta Products Co.  
Boss & Seiffert Co.  
Blanding & Blanding  
Bard-Parker Co., Inc.  
Otis Clapp & Son, Inc.  
Jas. F. Coyne  
Cameron Surgical Specialty Co.  
Corp. Bros.  
Geo. L. Claffin Co.  
Coca-Cola Co.  
Davies, Rose & Co., Ltd.  
Fair Oaks Farms Milk  
Hood's Milk

Hynson, Westcott & Dunning, Inc.  
Horlick's Malted Milk Corp.  
Lepel High Frequency Lab.  
Lederle Laboratories, Inc.  
Mead-Johnson & Co.  
E. F. Mahady Co.  
Mellins Food Co.  
Philip Morris & Co., Ltd.  
E. R. Squibb & Sons,  
Scientific Sugars  
Winthrop Chemical Co., Inc.  
Dr. Frank H. Lahey, Lahey Clinic

The credit for this fine commercial exhibit is due to the Committee on Exhibits of which Dr. C. W. Skelton is chairman.

The following program was then presented:

1. "The Schilling Hemogram in Appendicitis," Dr. Henri E. Gauthier. Discussion by Dr. Herman A. Lawson.

2. "Treatment of Cancer of the Cervix at the Rhode Island Hospital—293 Cases with Five Year Followup" (lantern demonstration), Dr. George W. Waterman. Discussion by Drs. Herman C. Pitts, Russell, Hale, Houghton and Waterman.

3. "Observations from the Heart Clinic, Rhode Island Hospital," Dr. C. C. Dustin. Discussion by Drs. H. L. C. Weyler, H. A. Jones, and Dustin.

4. "History of the Rhode Island Hospital," Dr. John M. Peters.

Dr. W. W. Hunt moved that a rising vote be given Dr. John M. Peters as an expression of love and respect in which he is held by the Fellows.

5. "Medical Organization in the United States," Dr. Olin West, Secretary of the American Medical Association.

The afternoon session adjourned at 6 o'clock, and supper was served in the Rhode Island College of Education.

The meeting reconvened at 8 P. M. at which time the following papers were presented:

1. "Colics following Cholecystectomy; the Probable Mechanism of Their Production" (lantern and moving picture demonstration), Dr. Albert M. Snell, Mayo Clinic, Rochester, Minn. Discussion by Dr. R. S. Bray, and Dr. Snell.

2. "Ductless Glands and Their Surgical Relations" (lantern demonstration), Dean Lewis, Professor of Surgery, John Hopkins University, Surgeon-in-Chief John Hopkins Hospital, Baltimore. Discussion by Dr. A. T. Jones.

Dr. Jesse E. Mowry presented for the Committee consisting of Dr. Halsey DeWolf and himself,



the following resolution with reference to Dr. J. W. Leech, retiring Secretary of the Society:

"Dr. James W. Leech was elected Secretary of the Rhode Island Medical Society—as the record shows—on May 16, 1916, at 4:45 P. M., and after twenty years of service he retires at his own request.

"Dr. Leech has contributed, during these twenty years, in great part to the progress of the Society. His wisdom, tact, and knowledge of the state of medicine—both nationally and in Rhode Island—have served to keep us in the forefront of professional organizations. He has been literally the main spring which activates our forward movement; the fountain head from which has flowed our stream of progress.

"To those Fellows who have sat in the Council or House of Delegates, and especially to those who have had the honor of occupying the Presidential Chair, it is a pleasure to recall the calm, self-effacing, yet amazingly wise and dominating influence which Dr. Leech has exerted in all matters pertaining to the Society's activities. It is a satisfaction to us all that Dr. Leech, in retiring as Secretary, becomes the Second Vice President of the Society and so continues to work in its behalf.

"With these thoughts in mind your committee would propose the following:

"*Whereas*: Dr. Leech sees fit to resign the position of Secretary of the Rhode Island Medical Society after twenty years of faithful and efficient service; be it

"*Resolved*: That the Fellows applaud and thank him for his great contribution to the Society's progress and rejoice in the fact that his useful service will still continue; and further

"*Resolved*: That this minute and these resolutions be spread upon our records and a properly engrossed copy sent to Dr. Leech."

This resolution was adopted unanimously by a rising vote.

On Thursday, in the morning, clinics were held at the hospitals as above noted, and the Society reconvened at the Medical Library at 2 P. M. for the continuation of the scientific program. At this time the following papers were presented:

1. "A Ten Year Statistical Study of Perforated Gastric Ulcer," Dr. Anthony Corvese. Discussion by Drs. F. V. Hussey, C. S. Westcott, R. S. Bray, F. H. Lahey of Boston, and Dr. Corvese.

2. "Surgical Therapy in Relation to Epilepsy," Dr. Wilder Penfield, Montreal. Discussion by

Drs. W. Pickles, J. E. Donley, A. Ruggles, C. Bradley, J. McCaffrey, and Penfield.

The newly elected President, Dr. J. E. Donley; Dr. J. W. Leech, Second Vice President; and Dr. Guy W. Wells, Secretary, were inducted into office by the President, and after a brief speech of acceptance the new President, Dr. Donley, adjourned the meeting to reassemble at the Pomham Club, where a shore dinner was served at 7 P. M. Group pictures were taken on the grounds of the Club, and after an enjoyable dinner the Anniversary Chairman, Dr. Herbert E. Harris, presented His Excellency, Governor Theodore Francis Green, who extended the good wishes of the State to the Rhode Island Medical Society. The Anniversary Chairman then introduced Mr. Thomas Murray of Somerville, Mass., who impersonating "Sir John Gray, Commissioner of International Affairs from Great Britain," entertained the members by apparently serious remarks upon international affairs, only to reveal himself at the end of his speech as a professional entertainer.

Adjourned.

Respectfully submitted,

J. W. LEECH, *Secretary*

(The Minutes of the June Meeting to be continued in the August number.)

#### BOOKS RECEIVED FOR REVIEW

COMPLETE HANDBOOK ON STATE MEDICINE, by J. Watson Walch, Chief Compiler. That he who Debates may Debate Well. Debaters' Information Bureau, 45A Free Street, Portland, Me., 1935. Paper, Price \$2.50.

BEWILDERED PATIENT, by Marion S. Newcomer, M.D., with an Introduction by Henry S. Patterson, M.D. Hale, Cushman & Flint, Boston and New York, 1936. Cloth, Price \$1.75.

THE SINGLE, THE ENGAGED AND THE MARRIED, by Maurice Chidekel, M.D. Eugenics Publishing Co., Inc., New York, 1936. Cloth,

ALLERGY OF THE NOSE AND PARANASAL SINUSES, a Monograph on the Subject of Allergy as Related to Otolaryngology, by French K. Hansel, M.D., M.S., Assistant Professor of Clinical Otolaryngology, Washington University School of Medicine; Fellow of the Association for the Study of Allergy, the Association of Resident and Ex-Resident Physicians of the Mayo Clinic, the American Laryngological, Rhinological and Otolological Society, and the American Academy of Ophthalmology and Otolaryngology. With fifty-eight text illustrations and three color plates. The C. V. Mosby Company, St. Louis, 1936. Price \$10.00.



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# VITAMINS IN CANNED FOODS

## I. VITAMIN C

• The history of scurvy is as old as the history of exploration and conquest. Its ravages among early explorers and invaders are recorded in the oldest pages of history, due principally to the fact that during extended sea voyages or treks by land, dependence had necessarily been placed almost entirely on foods preserved by the crude methods of the day.

Scurvy was the first vitamin deficiency disease to be controlled by dietary management. In 1757, Lind recognized the fact that some substance in foods exerted a specific protective action against scurvy (1). As early as 1804, the daily lime juice ration became compulsory in the British Navy (2).

However, it remained for modern biochemical science to establish the chemical identity of this antiscorbutic factor. Vitamin C is now known to be identical with cevitamic acid (levo-ascorbic acid) and is as yet the only vitamin to be synthesized in the laboratory (3).

There would appear to be no valid reason why scurvy should ever constitute a serious threat to the health of the average American

infant or adult. Development of refrigerated transportation for raw foods and improvements in modern methods of food preservation, specifically canning methods, make available to the consumer during the entire year a large variety of foods possessed of valuable vitamin C contents. In addition, the modern trend towards education of the layman, in regard to the vitamin C requirements of both the infant and the adult, should also assist in complete eradication of infantile and adult scurvy from America.

Many canned foods are to be valued as contributors of vitamin C. Nutritional research has indicated that canned products such as the citrus fruits or citrus fruit juices (4), the more common fruits (5), and vegetables or vegetable juices, are important sources of the antiscorbutic factor (6). Modern canning procedures afford a good degree of protection to this labile vitamin, with the result that the canned food can be relied upon to supply amounts of vitamin C to the diet consistent with the amounts of the vitamin originally contained in the raw food from which it was prepared.

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(1) Vitamins: A Survey of Present Knowledge. Page 187. Medical Research Council, Special Report 167. 1932. His Majesty's Stationery Office, London.

(2) Vitamins in Theory and Practice, Page 86. L. J. Harris, 1935. Macmillan, New York.  
(3) 1933 J. Chem. Soc. 136, 1419.

(4) 1930 J. Home Econ. 22, 588.  
(5) 1935 Amer. Jour. Pub. Health, 25, 1340.  
(6) 1933 Ind. Eng. Chem. 25, 682.

*This is the fourteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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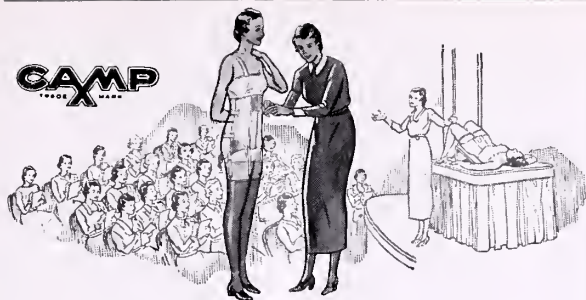
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★ *Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154

★★ *Proc. Soc. Exp. Biol. and Med.*, 1934, 32, 241-245

*N. Y. State Jour. Med.*, Vol. 35, No. 11,590

*Arch. Otolaryngology*, March 1936, Vol. 23, No. 3, 306-309

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*Med.*, 1934, 32, 241-245.

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John M. McGowan, M.D. and Winfield L. Butsch, M.D., of The Mayo Foundation  
Observations from the Heart Clinic of the Rhode Island Hospital. By Cecil C. Dustin, M.D.  
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\*Martenstein, H.: Syphilis Treatment: Enquiry in Five Countries, *League of Nations Quart. Bull. Health Organ* 4:129, 1935.

# VITAMINS IN CANNED FOODS

## II. VITAMIN D

• One of the most interesting chapters in the history of the science of nutrition is that relating to vitamin D. It is a record of steady advances in our knowledge concerning the vitamin. Starting with the work of Huld-schinsky in 1919 on the ultraviolet irradiation of rachitic children; passing to the classical discovery in 1924 by Steenbock (1) and by Hess (2) that irradiated foods may acquire antirachitic potency; and extending through the profound studies of Windaus (3) and other investigators, on the constitution of the pure vitamin D obtained by ultraviolet irradiation of ergosterol, the story of vitamin D is a story of steady, scientific progress.

As a result of these basic contributions, there are available today a number of excellent standardized carriers of vitamin D. Viosterol, and the fish liver oils, and their concentrates, are readily available for use in the campaign against rickets whose prevalence, especially among infants in large urban centers, still remains high. In addition to these vitamin D carriers, the vitamin D fortified or irradiated foods have appeared within recent years.

It has become increasingly evident that there are a number of compounds which may promote calcification in the various animal species. It is further evident that these compounds vary in their physiologic

efficiency with various animal species, or that they are "species specific". A number of forms of vitamin D have been postulated (4) and much research in the vitamin D field has been directed toward their isolation and identification.

In general, natural foods have never been regarded as important sources of vitamin D. The commonest food articles show extremely low antirachitic potencies when measured by conventional methods. However, recent evidence has been offered that the contribution of vitamin D made by a varied diet of canned foods may be more significant than has heretofore been supposed (5). While common foods admittedly cannot supply the high demands of infancy and childhood or other phases of the life cycle, for vitamin D, it would appear that they may supply significant amounts of the vitamin to the diet, especially in the case of the adult human, concerning whose quantitative vitamin D requirement comparatively little is known.

Biological research has shown that canned marine products such as salmon, shrimp, and oysters (6) make a small but definite contribution of the antirachitic factor to the diet. We desire to direct the attention of our readers to these interesting facts about canned foods in general, and these canned marine products in particular.

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- (1) 1924, J. Biol. Chem. 61, 405  
(2) 1924, J. Biol. Chem. 62, 301  
(3) 1932, Ann. 492, 226  
(4) 1935, Physiological Reviews 15, 1-97

- (5) 1934, Ind. Eng. Chem. 26, 758  
(6) a. 1935 J. Home Econ. 27, 658  
b. 1933, Science, 78, 368  
c. 1926, Wis. Agr. Expt. Sta. Bul. 586, 124

*This is the fifteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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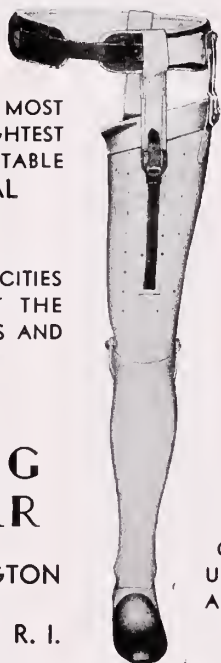
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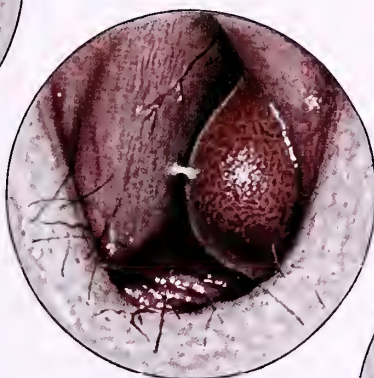
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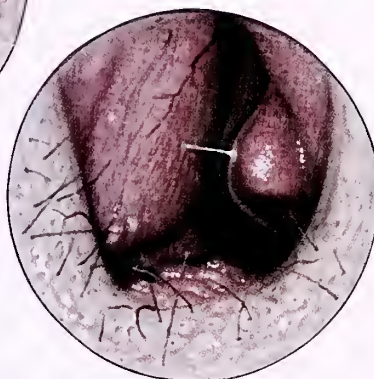
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**FIG. 2.** Dec. 13. Nose in unshrunk state after 16 days treatment with Benzedrine Inhaler, three times daily. Engorgement reduced, tone good, irritation relieved. Note absence of atony.



**FIG. 3.** Dec. 13. Nose in shrunk state seven minutes after application of Benzedrine Inhaler. High degree of shrinkage indicates no tolerance even after continued use.



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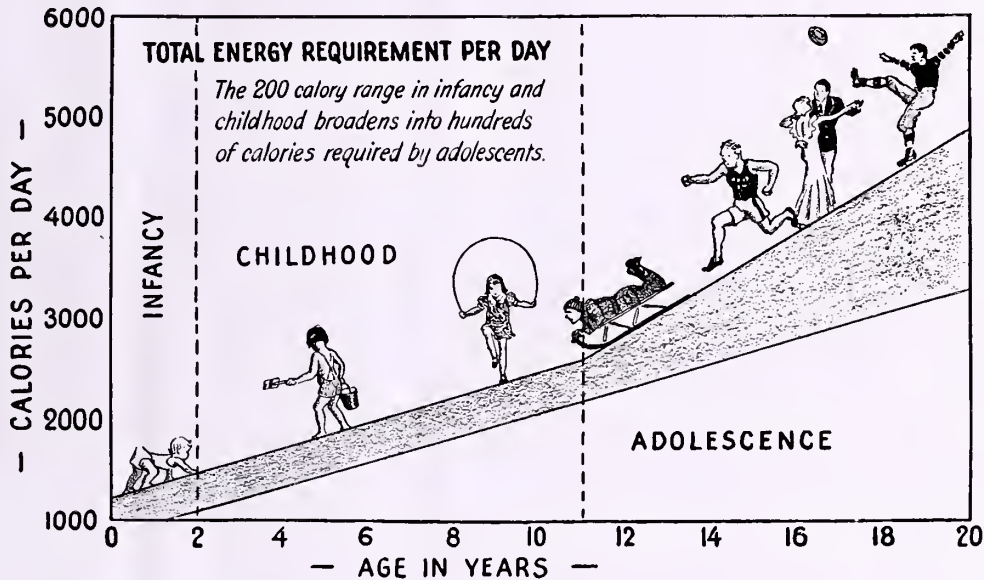
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## COLICS FOLLOWING CHOLECYSTECTOMY; THE PROBABLE MECHANISM OF THEIR PRODUCTION\*

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Among the many perplexing problems which have troubled students of biliary disease, two stand out preëminently: The first is that biliary colic or something closely akin to it may occur without any important demonstrable change in the gallbladder, or with at most only minor degrees of cholecystitis; the second is the persistence of biliary colic after cholecystectomy, even in the absence of any significant lesion of the common duct, pancreas, or liver.

Since no entirely adequate explanation on pathologic grounds has presented itself in either instance, a purely physiologic hypothesis has been invoked to explain these phenomena. The conception of "biliary dyskinesia" or motor dysfunction of the extrahepatic bile passages is not new,<sup>16, 19</sup> but it has found little support from clinicians and surgeons and the evidence presented in its behalf has not been entirely convincing. Recently, however, studies have been made on human subjects which furnish strong evidence that motor dysfunction of the biliary tract exists in fact, at least after cholecystectomy.

### *Physiology of the Choledochal Sphincter*

The motor functions of the biliary tract require brief consideration as a preliminary to the discussion to follow. It is now generally agreed that the gallbladder fills during the digestive cycle, and discharges itself in response to a hormonal stimulant, cholecystokinin, which is produced by the passage of certain food substances through the duodenum. In connection with this cycle of filling and emptying, the sphincteric mechanism at the choledochoduodenal junction comes into play.

The existence of such a sphincter has been disputed, but embryologic (Boyden), anatomic (Hendrickson), and physiologic (Mann and Higgins, McMaster and Elman)<sup>3, 13</sup> proof of its existence is now at hand. Anatomically inconspicuous but of great physiologic importance, it is an integral part of the functional unit which regulates cholecystic filling and evacuation. The sphincter is in contraction during the fasting state, and it can, when contracted, resist a pressure much greater than the secretory pressure of the liver. Closure of the sphincter allows the gallbladder to fill, and conversely, relaxation of the sphincter permits the gallbladder to discharge its contents into the duodenum.

To explain this mechanism, the Doyon-Meltzer idea of "reciprocal activity" has been advanced, and it is now believed that disturbances in this reciprocal function which cause the gallbladder to contract against a closed or spastic sphincter may explain some otherwise poorly understood pain phenomena arising in the biliary tract.<sup>19</sup> For instance, Ivy<sup>7, 8</sup> and his collaborators have demonstrated that biliary pain can be produced by inducing sphincteric spasm with pilocarpine, or by producing contractions of the gallbladder when the sphincter is in a normal state of contraction with a preparation of cholecystokinin. In these experiments instillation of magnesium sulphate into the duodenum relaxed the sphincter, produced a flow of bile, and relieved the pain. It is apparent, therefore, that a hyperkinetic or spastic sphincter may be capable of producing pain even with the gallbladder in situ.

Once the gallbladder has been removed and its "tension-bulb" function eliminated, the problem is considerably altered. Ordinarily, cholecystectomy produces temporary incompetence of the sphincter and bile dribbles into the bowel. Later, its normal tone is resumed and, as Judd and Mann demonstrated, this physiologic property of the sphincter is responsible for the dilatation of the extrahepatic ductal system which invariably follows cholecystectomy; at least, if the sphincter is sectioned, this dilatation does not occur. The resistance of the sphincter to the secretory pressure of the liver is sufficient to build up a considerable intraductal pressure in the dog, and presumably, this is also true in man.

\*Read before the one hundred and twenty-fifth Annual Meeting of the Rhode Island Medical Society, Providence, Rhode Island, June 3 and 4, 1936.



Likewise, the alternate contraction and relaxation of the sphincter may explain the intermittent nature of biliary flow after cholecystectomy.<sup>15</sup> If one assumes that the sphincter may become spastic, irritable, or hyperkinetic after cholecystectomy, it is easy to see how intraductal pressure might be elevated to a very significant degree. In other words there is a sound physiologic explanation for postcholecystectomy colics provided one could prove: (1) that a measurable tonic contraction of the choledochoduodenal sphincter occurs in human subjects, and (2) that increased intraductal pressure causes pain or colic in human subjects.

Proof for both of these points has become available during recent months: Zollinger has demonstrated that inflation of a small balloon placed in the common duct at operation will produce true visceral pain of a colicky nature, together with nausea, vomiting and respiratory disturbances; and the experiments to be discussed in subsequent paragraphs prove the existence, under certain circumstances, of sphincteric spasm and temporary physiologic obstruction to the common duct of the human subject.

#### *The Clinical Syndrome of Postcholecystectomy Pain*

Before proceeding to the discussion of these studies, a word in regard to the unfavorable clinical sequelæ of cholecystectomy is necessary. As Weir and Snell pointed out recently, true colic after removal of the gallbladder is due to one of several causes. The transient postoperative or "convalescent" colic is probably due to motor disturbances incidental to postoperative dilatation of the bile passages. The more persistent types are due to: (1) anatomic obstruction to the common duct by stricture, stone, or cholangitis, and (2) physiologic obstruction to the ductal system, presumably due to spasm of the sphincter of Oddi.

The last-mentioned type alone concerns us here. Most of the sufferers from the condition are women, and many of them have suffered from supposedly neurogenic visceromotor disturbances in addition to cholecytic disease. The principal symptom mentioned by these individuals is the frequent occurrence of severe colicky pain arising in the region of the gallbladder, sometimes being projected to the right subscapular region. These attacks usually begin and end suddenly. Nausea and vomiting accompany the pain, but chills, fever, leukocytosis, and jaundice are absent. The major attacks may be interspersed with milder seizures of a sim-

ilar character. Residual tenderness is uncommon although it may occur, and in some individuals cutaneous hyperesthesia may follow an attack.

A considerable number of these patients have been subjected to exploration of the extrahepatic bile passages at varying lengths of time after cholecystectomy, with essentially negative results; some of them have been temporarily relieved by T tube drainage and "decompression" of the biliary tract. Repeated clinical and laboratory studies have failed to demonstrate any evidence of other abdominal disease or of any disorders confined to the central nervous system. Injection of lipiodol into the biliary tree by way of the T tube,<sup>17</sup> has in some cases indicated the presence of a tonic contraction of the ampullary portion of the duct. In short, all of the available information about individuals affected with the syndrome of postcholecystectomy colic points to a purely physiological disturbance, dependent on some motor dysfunction of the choledochal sphincter and associated with temporary increases of intraductal pressure. It was with this basic theory in mind that the present studies were begun.

#### *Methods of Study*

The first individual to be studied was a patient whose stone-filled and inflamed gallbladder had been removed a year previously but who continued to have biliary colic postoperatively. The common duct had been explored at a second operation, with essentially negative results except for the presence of very small pigment stones and "sand." A T tube was inserted into the duct for permanent drainage. Because of the persistence and severity of her pain, the patient was particularly willing to subject herself to study of intraductal pressures during attacks. A rubber tube, leading from the T tube in the common duct, was connected by means of a glass Y tube to a spinal fluid manometer, the other arm of the Y tube being connected with a glass reservoir containing physiologic saline solution.<sup>2</sup> By raising or lowering the reservoir, the pressure at which the saline solution entered the duodenum could be determined. This reading is referred to subsequently as the "perfusion" pressure. By clamping off the arm of tubing leading to the reservoir, the level of "intraductal" pressure could be read off directly on the manometer.

In the case just mentioned the resting intraductal pressure was zero, although the perfusion pressure was about 14 cm. of water. The manometer,

however, was observed for several hours, during which time numerous rises of pressure occurred, which corresponded with attacks of pain and which were an exaggerated form of the changes in pressure observed by Potter and Mann in the common duct of the experimental animal. During these attacks of pain, intraductal pressures as high as 160 mm. of water were recorded, the rise in pressure paralleling roughly the severity of the distress. This observation established, it seemed a possible explanation of the mechanism of postcholecystectomy pain; however, in order to study it in more detail, some means of provoking sphincteric spasm and a rise in intraductal pressure had to be devised. It was found that a small dose of morphine sulphate, 1/6 grain (0.01 gm.) given subcutaneously produced an attack of pain exactly similar to those of which the patient had previously complained. During this induced attack, the intraductal pressure, as measured by the manometer, rose from zero to from 200 to 350 mm. of water, and the perfusion pressure arose from 140 to 400 mm. of water. The procedure was repeated on several occasions with similar results. A search of the literature brought to light an observation of Kitakoji's, who showed that morphine caused contraction of Oddi's sphincter, thus explaining this seemingly contradictory effect. Later it was shown that the lipiodol, injected after a dose of morphine had been given, did not leave the common duct and flow into the duodenum as it had done before; roentgenograms after morphine had been given revealed a dilated common duct well filled with lipiodol, the sphincter apparently being in a state of contraction.

Following these observations, similar observations were made on a number of other individuals with T tubes in the common duct. The results were identical with those obtained with the first patient, thus confirming our impression that the reaction was not necessarily due to any idiosyncrasy on the part of the first patient tested. A definite program was then carried out in an attempt to test the reaction of other substances on the mechanism governing intraductal pressure.

Because of the common use of other derivatives of morphine in the treatment of postcholecystectomy colic, we checked the effects of a number of these preparations on the intraductal and perfusion pressures. Pantopon, in doses of 1/3 grain (0.02 gm.), and codein in doses of 1 grain (0.06 gm.), produced similar contractions of the sphincteric

mechanism and elevations in pressure. These changes were slower in development and less marked than those produced by morphine, and the effects were also considerably less lasting than those produced by morphine, which was found to cause rises in pressure lasting over a period of more than two hours in certain individuals.

The actions of various antispasmodic drugs on the common duct were then investigated. The drug to be tested was first injected and the choledochal pressure observed to be certain that there was no primary effect. If there was no reaction to the drug, a small dose of morphine was given (1/6 grain) and, when the pressure had reached its height, the drug to be investigated was administered. Curiously enough it was found that atropine in doses of 1/75 grain (0.0008 gm.), sufficient to produce dilatation of the pupils and dryness of the mouth, did not relieve spasm at the choledochoduodenal juncture. Negative results were obtained with muscle adenosine phosphate (40 mg.), alcohol (30 c.c.), histamine (0.6 mg.), calcium chloride (10 c.c. of 10 per cent solution intravenously), ephedrine (3/4 grain, or 0.05 gm.), and epinephrine (1 c.c. of a 1:1,000 solution). Brief depressions of intraductal pressure were noted after the use of epinephrine, but they were not sufficiently lasting to be of therapeutic significance. Papaverin hydrochloride was also without effect.

Certain drugs presumed to have a specific effect on the parasympathetic system were also investigated: Physostigmine, 1/25 grain (0.0026 gm.) and acetylcholine produced no appreciable effect either singly or in combination. Ergotamine tartrate (0.5 mg.), caffein sodium benzoate in doses of 7½ grains (0.48 gm.), and sodium phenobarbital likewise were ineffective. The only drugs found which had any prompt or striking effect on the apparent spasms of the sphincter of the common duct were the nitrites. It was found that the inhalation of amyl nitrite would instantly lower the elevated intracholedochal pressure produced by morphine and it had a similar and entirely comparable effect on the rises in pressure associated with spontaneous colics. It was noted that the pressure within the duct tended to rise again as the effect of amyl nitrite wore off, but a repetition of the dose of nitrite on several occasions produced a further fall in the ductal pressure, exactly as it did after the first dose. Glyceryl trinitrate produced a somewhat less rapid effect, but relaxation of the sphincter persisted over



a longer period of time. Theophylline ethylenediamine intravenously in one case produced satisfactory relaxation of the sphincter and a fall in pressure. It is of interest to note that observations of the duct after injection of lipiodol confirmed fully the relaxing effect of nitrites and related compounds on the sphincteric mechanism. If the common duct was injected with lipiodol following the administration of morphine, none of the injected material appeared to escape into the duodenum; after inhalation of amyl nitrite, the sphincter relaxed and allowed the lipiodol to flow freely into the bowel.

It seemed desirable to approach the problem by another route, and for this reason high spinal anesthesia and splanchnic block were employed separately in one case while the sphincter was in a state of contraction produced by morphine. It was thought that in this way impulses traveling through the right splanchnic nerve might be interrupted. The splanchnic nerve certainly carries sensory fibers from the bile ducts, and it has been shown that splanchnic stimulation causes definite contraction of the biliary sphincter and relaxation of the gallbladder. Only one patient has been studied in this manner, and in this case injection of the right splanchnic nerve with procaine did not reduce the intracholedochal pressure and the pain which followed administration of morphine. In the same case, several days later, high spinal anesthesia extending to the level of the second thoracic vertebra was administered after injection of morphine.<sup>5</sup> The painful contraction of the sphincter and the marked rise in intraductal pressure persisted in spite of the anesthesia. Injection of lipiodol confirmed the closure of the sphincter in this case. Amyl nitrite by inhalation promptly reduced the intraductal pressure to zero and, following this, it could be shown that lipiodol was passing freely from the common duct into the duodenum. It is clear, of course, that one experiment of this type does not by any means settle the problem of the relation of the splanchnic nerve to the postcholecystectomy syndrome; further studies of this type are necessary since, in certain cases, as will be mentioned later, splanchnic section has given some encouraging results.

#### *The Mechanism of Postcholecystectomy Colic*

The procedures just described seem to point clearly to the fact that postcholecystectomy colics are due to spastic contraction of the sphincter of Oddi, with a secondary rise in pressure within the

intrahepatic and extrahepatic ducts. Unfortunately, there is no means of absolutely differentiating the two effects, so that it cannot be stated with certainty whether the spasm of the sphincter is of itself capable of producing pain or whether the rise in intraductal pressure is also an important factor. As a rule, disconnection of the closed system connecting the common duct with the manometer produces relief of pain, corroborating the well-known observation that it is rare for a patient to have postcholecystectomy colic when the ductal system is decompressed by means of a patent T tube. There have been some exceptions noted, but rises in pressure are certainly significant and important.

Why the sphincteric mechanism should remain so irritable in these individuals is a question which cannot at the present time be answered. Possibly these individuals suffer from one form of Schmieden's "cholepathia spastica." Probably local mucosal inflammation may induce sphincteric spasm very much as an infected anal fissure will produce painful spasm of the anal sphincter. Whether one is justified in speaking of "sphincteritis" is uncertain, but there is some pathologic evidence to indicate that the sphincter may actually hypertrophy after cholecystectomy or in the presence of active cholecystitis.<sup>4</sup> Because of the intimate relation of the pancreas to the sphincter, it is not improbable that pancreatitis, if present, might have an irritating effect on the choledochoduodenal junction. Further studies on intraductal and intraduodenal pressures in animals and continued observation of patients will probably be necessary to settle the point, but it does seem quite probable that the element of infection within the ductal system may be of etiologic importance.

One is tempted here to generalize on the possible significance of a hypertonic sphincter in the production of biliary disease. However, it is by no means certain that normal human or animal subjects would react in the same manner as patients suffering from postcholecystectomy colic, and it appears that some underlying pathologic process must be present to make the sphincter so extremely irritable and its contractions so painful in these particular individuals. In a few cases in which T-tube drainage of the common duct has been employed following the removal of stones, it has been shown that rises in intraductal pressure occur after the injection of morphine but without being accompanied by pain. The possible effects of the presence of stone on



sphincteric tonus render these experiments less significant than one might wish.

No data on the sphincteric activity in strictly normal subjects are available, and for this reason alone it is felt that no inferences should be drawn as to the activity of the sphincter in producing "biliary stasis" or related conditions in human subjects. The possibility that a hyperactive sphincter may enter into the production of biliary disease in general cannot be denied, but it has not as yet been proved; the relation of the sphincter of Oddi to the production of such symptoms as colic in established biliary disease is only beginning to be understood. The safest course is to consider postcholecystectomy colic as a distinct entity, which can be distinguished by the absence of anatomic lesions of the ducts and by an irritable sphincter reacting particularly to certain exogenous and endogenous stimuli.

#### *Treatment*

The treatment of patients with postcholecystectomy colic has presented extraordinary difficulties, as one might expect in dealing with a visceromotor disturbance of this type. Many of the patients were formerly regarded as purely neurotic, but treatment directed along these lines has accomplished nothing. Courses of transduodenal biliary drainage and the administration of antispasmodics, sedatives, alkalies, cholagogues and saline laxatives together with dietary regulation, have been without significant effect on either the frequency or the severity of the colics. Morphine, as has been indicated in the foregoing paragraphs, will tend to increase the severity of the attacks unless given in large and virtually anesthetic dosage; the danger of habituation has also to be considered.

The use of nitrites, however, has marked a distinct therapeutic advance; in a series of ten patients studied by Walters and two of us,<sup>12</sup> complete relief of pain during attacks was obtained by giving 1/100 grain (0.0006 gm.) of glyceryl trinitrate; in two other cases, prior to cholecystectomy, the same remedy produced immediate relief. We have seen other patients with surgically verified stone in the common duct who have obtained relief in the same manner. Not every patient responds to nitrites, and in some cases relief may be incomplete or transient. In some cases repeated doses may be required; in others, especially when the patient's attacks have persisted for some hours, the nitrites are wholly ineffective. However, it must be said that either amyl nitrite or nitroglycerin is the drug of choice for the

relief of the immediate attack of pain, and that the use of morphine and its derivatives, all of which have been shown to produce sphincteric spasm and rises in intraductal pressure, should if possible be avoided. In patients with the pure postcholecystectomy syndrome the sphincter appears to be actually hypersensitive in its reaction to opium derivatives and to the nitrites, a point which, as has been indicated, may distinguish such cases from those presenting anatomic lesions of the bile passages.

Naturally the individual who suffers from severe and frequent postcholecystectomy pain is not satisfied to place his entire reliance on drugs, and other means of obtaining a more permanent result have to be considered. Of these, prolonged surgical biliary drainage by means of a T tube has yielded the best results.<sup>9</sup> First used on the theory that residual infection in the ductal system was the etiologic factor in this condition, it is now apparent that the T tube accomplished its effects in two ways: first by providing a means of permanent decompression of the common duct, and second by producing a relative incompetence of the sphincter. A considerable number of patients have been permanently relieved by this means; in other cases colics have recurred after the removal of the tube. In a few highly sensitive patients, colics have occurred with the tube in situ, presumably because of protracted spasm of the sphincter itself. Dilatation of the sphincter with scoops at the time surgical drainage is established appears to be of some value. Attempts at transplantation of the common duct to free it from its nervous connections and to abolish the effect of the sphincter are objectionable for two reasons: (1) the duct is left open for the entry of organisms from the duodenum, which may set up a cholangitis, and (2) cicatricial contraction and stenosis of the duct develops eventually at the point of transplantation.

The method of attempting to sever the motor and sensory nervous connections of the duct and its sphincter is still in its infancy, and it has been disappointing chiefly because of our ignorance as to the distribution of motor and sensory fibers in the sympathetic and vagal branches supplying the duct. As has been stated, splanchnic stimulation produces contraction of the papillary portion of the sphincter; the branches of the right splanchnic nerve also contain sensory fibers which carry pain impulses from the biliary tract. There are, of course, other motor connections reaching the sphincter by way of the vagus nerve. Strong vagal stimulation produces

spasm of the antral sphincter, while light stimulation of the same nerve trunks produces relaxation of the papillary sphincter.<sup>19</sup> For these reasons it would seem logical to section the right splanchnic nerve for the relief of postcholecystectomy pain, since by this means painful sensations would be interrupted, and the mechanisms by which stimuli traversing the splanchnic nerves serve to produce spasm of the sphincter would be rendered inoperative.

We have records of three cases in which this operation was performed. In the first case colics had recurred after exploration of the common duct and prolonged T-tube drainage. Splanchnic section gave relief to the patient for about two years, at which time the patient passed from our observation. In a second case, also in which the patient continued to have colics after surgical biliary drainage, the results of splanchnic section were poor; for a time the attacks of pain were less frequent and severe, but they have since returned to their former state. In the third case the duct had not been reexplored after the original operation, but for various reasons it seemed advisable to proceed directly with splanchnic section. This patient had obtained relief from colic previously by splanchnic block induced with procaine. Section of the splanchnic nerve was followed by a stormy postoperative convalescence with numerous colics; the patient finally made a good recovery and was free from trouble for a year. However, she has recently had a series of severe colics and is again under observation. We have tentatively explained the two unsatisfactory results on the ground that the left splanchnic nerve carried sensory fibers, which of course had not been sectioned.

That this is not the entire story is apparent from some recent observations in these two cases. Neither of the patients can be thrown into an attack by injections of morphine, but neither do they obtain satisfactory relief of pain from its use. In both instances nitrites are now ineffective in relieving colic, even if used in repeated doses. In the third case mentioned a duodenal tube was introduced at the beginning of an attack, and magnesium sulphate was injected into the duodenum in an effort to relax the sphincter. Some slight relief was obtained and a small quantity of light amber bile, heavily mixed with mucus, was obtained on siphonage. It is possible that both splanchnic trunks will have to be sectioned if one wishes to eliminate completely all

the sensory connections of the duct, although in our third case left splanchnic block did not relieve a painful seizure. It seems equally certain that the vagal branches leading to the sphincter must play a part in the production of spasm, and that some method of interrupting them is worthy of trial. The ineffectiveness of nitrites in relieving colic after splanchnic section is difficult to explain, and no tenable hypothesis can be advanced until more exact knowledge of the motor and inhibitory functions of the splanchnic and vagus nerves of the duct and duodenum is available. In fact, the whole subject of visceromotor pain and "dyskinesia" would be greatly clarified by such information.

### Summary

Postcholecystectomy colic is associated with a hyperkinetic and irritable state of the sphincter of the common duct. The pains which characterize the condition are of a true visceral type, and appear to depend on spasm of the sphincter with prolonged increases in intraductal pressure. Affected individuals appear to be "sensitized" to derivatives of opium, and the cases studied to date have all shown rises in intraductal pressure associated with pain after the administration of morphine and other opiates. Nitrites relax spasm of the sphincter and lower intraductal pressure, thus relieving pain both in spontaneous colics and in those induced by morphine. Attempts have been made to relieve the hyperirritable state of the sphincter by surgical drainage of the duct and by section of the right splanchnic nerve, the former method having so far proved to be the more satisfactory of the two.

### BIBLIOGRAPHY

1. Boyden, E. A.: The phylogeny of the sphincter choledochus. *Abstr. Anat. Rec. (Suppl.)* **64**:7 (March) 1936.
2. Butsch, W. L. and McGowan, J. M.: Pressure in the common bile duct: a preliminary report. *Proc. Staff Meet. Mayo Clinic.* **11**:145-150 (March 4) 1936.
3. Elman, Robert and McMaster, P. D.: The physiological variations in resistance to bile flow to the intestine. *Jour. Exper. Med.* **44**:151-171 (Aug.) 1926.
4. Giordano, A. S. and Mann, F. C.: The sphincter of the choledochus. *Arch. Path. and Lab. Med.* **4**:943-957, 1927.
5. Gray, H. K., McGowan, J. M. and Butsch, W. L.: Unpublished data.
6. Hendrickson, W. F.: A study of the musculature of the entire extra-hepatic biliary system, including that of the duodenal portion of the common bile-duct and of the sphincter. *Bull. Johns Hopkins Hosp.* **8-9**:221-232 (Sept.-Oct.) 1898.
7. Ivy, A. C. and Sandblom, Philip: Biliary dyskinesia. *Ann Int. Med.* **8**:115-122 (Aug.) 1934.
8. Ivy, A. C., Voegtlin, W. L. and Greengard, H.: The physiology of the common bile duct: a singular observation. *Jour. Am. Med. Assn.* **100**:1319-1320 (April 29) 1933.



9. Judd, E. S.: Conditions of the common duct after cholecystectomy. *Jour. Am. Med. Assn.* **81**:704-709 (Sept. 1) 1923.
10. Judd, E. S. and Mann, F. C.: The effect of removal of the gall-bladder. *Surg., Gynec., and Obst.* **24**:437-442 (April) 1917.
11. Kitakoji, Yoshiharu: Studien über die Functionen der Gallenblase und des Oddischen Muskels in Bezug auf die Absonderung der Blasengalle: I. Mitteilung. Über den Einfluss von Nervengiften auf die Functionen der Gallenblase und des Oddischen Muskels. *Nagoya Jour. Med. Sc.* **5**:24-29 (Nov. 20) 1930.
12. McGowan, J. M., Butsch, W. L. and Walters, Waltman: Unpublished data.
13. McMaster, P. D. and Elman, Robert: On the expulsion of bile by the gall bladder; and a reciprocal relationship with the sphincter activity. *Jour. Exper. Med.* **44**:173-198 (Aug.) 1926.
14. Mann, F. C. and Higgins, G. M.: A physiologic consideration of the sphincter of the ductus choledochus. *Proc. Soc. Exper. Biol. and Med.* **24**:533-534 (Feb. 23) 1927.
15. Potter, J. C. and Mann, F. C.: Pressure changes in the biliary tract. *Am. Jour. Med. Sc.* **171**:202-217 (Feb.) 1926.
16. Schmieden, V. and Niessen, H.: Dyskinesie der Gallenwege (Cholepathia spastica) und Chirurgie. *München. med. Wchnschr.* **80**:247-250 (Feb. 17) 1933.
17. Walters, Waltman and Thiessen, N. W.: Visual methods of studying the physiology of the common bile duct: I. The problem of pancreatitis and sphincteritis. *Proc. Staff Meet. Mayo Clinic.* **9**:772-775, (Dec. 19) 1934.
18. Weir, J. F. and Snell, A. M.: Symptoms that persist after cholecystectomy; their nature and probable significance. *Jour. Am. Med. Assn.* **105**:1093-1098 (Oct. 5) 1935.
19. Westphal, Karl: Muskelfunktion, Nervensystem und Pathologie der Gallenwege: I, II, and III. *Ztschr. f. klin. Med.* **96**:22-150, 1923.
20. Zollinger, Robert: Significance of pain and vomiting in cholelithiasis. *Jour. Am. Med. Assn.* **105**:1647-1652 (Nov. 23) 1935.

### OBSERVATIONS FROM THE HEART CLINIC OF THE RHODE ISLAND HOSPITAL\*

CECIL C. DUSTIN, M.D.

199 THAYER STREET, PROVIDENCE, R. I.

The heart clinic at the Rhode Island Hospital out-patient department was organized in 1926 as an auxiliary to the medical department by two of the men who were convinced that the heart cases, especially the rheumatic group, deserved more study and care than was being given in the medical clinic. With the reorganization of the entire medical service of the hospital in 1929, and the expansion of the heart station in the main hospital, the out-patient heart group was put under the direction of the consulting cardiologist. With selected teams to carry on the work in the clinic, it has been possible to act in much closer cooperation with the main hospital and with certain helpful outside agencies.

The clinic operates in two teams, each having a senior who serves continuously and an externe who serves for a year. The senior is able to follow the same cases year after year. This is of mutual benefit as is true in studying any chronic disease. The aim of the heart clinic is twofold; first to give the patients the special study and care which ambulatory heart cases require and second to allow interested externes the opportunity to become more familiar with heart disease. Only a limited amount of clinical investigation is possible because no funds are available and few of us can, unaided, devote the necessary time for clinical research.

A full time social service worker is assigned to the clinic and her services have proved invaluable in the efficient operation of the group. Home investigation is essential, particularly in dealing with the younger people with rheumatic heart disease. Our social service worker has obtained cooperation of parents and relatives which would have been impossible had the doctors been working alone. She is the individual who arranges with the public school authorities for the valvular heart disease case to obtain a classroom schedule involving a minimum amount of stair climbing. She is the one to obtain for the worker suffering from angina pectoris a lighter job with the Federal, State and City relief agencies. It is through her that certain children past school age are placed with training agencies such as the Bureau for the Handicapped for industrial training that is within their physical ability; later to be placed in useful industries. As every case has a house survey we are in a better position to make recommendations that at least are within the possibilities of the family in question. We find it more satisfactory generally to transmit information to the parents by the social worker than by sending messages by the patients themselves. The clinic has had on the whole very good cooperation from all outside agencies. The public school department whenever possible has endeavored to carry out our recommendations for the individuals not quite well enough to carry on with normal school activities. Our effort in this respect has been mainly in obtaining excuses from the required physical education and in curtailing the number of trips per day up and down stairs as the pupils change classrooms. The necessity or desirability for such changes can only be determined by close study and it is not always well to take the word of the patient as to his physical ability or disability. The public school department of course has no special pro-

\*Read before the one hundred and twenty-fifth Annual Meeting of the Rhode Island Medical Society, Providence, R. I., June 3 and 4, 1936.



vision for the child handicapped by heart disease and any of them too ill to attend school have to choose between continuing, very much to the detriment of their health or relying upon some other agency.

The Bureau for the Handicapped is not equipped to carry on home instruction in the usual school subjects. It does maintain an instructor who teaches various useful forms of handicraft that is within the ability of the cardiac cripple. While the disease is too active to permit transportation to the headquarters home instruction is carried out. You are all familiar with the value of something useful to do in relieving the tediousness of the long convalescence from rheumatic heart disease. When the condition of the patient allows it, the bureau furnishes transportation to and from the classrooms if necessary, so that even with a rather high degree of handicap some of our patients are still able to obtain training in useful industry. To really appreciate the accomplishments of the bureau and the possibilities that have as yet been undeveloped in rehabilitating cardiac cases one should visit the place and see it in action. Apparently heretofore rehabilitation sponsored by public funds has been mostly confined to cripples injured in industry, but recently we have been able to place one boy in training under the direction of state rehabilitation officer. There is much need for this type of training and rehabilitation particularly among the younger heart patients who if kept properly inactive have a fairly good life expectancy. Training should be begun early in the valvular heart disease group because enforced prolonged physical inactivity leads to the establishment of a mental handicap, often very difficult to overcome.

Heart disease, in the mind of the average individual, is usually associated with an early and sudden death. If the diagnosis is made and the situation is not carefully explained to the patient he is apt to develop fears and anxieties which prevent him from indulging in even the lightest of physical work. It is as essential to arrive at an accurate estimation of the patient's mental reaction to his disease as it is to accurately determine his physical capacity for work. This is well illustrated in the high school boy who was told rather abruptly that he had valvular heart disease and must restrict his activity. He interpreted this as meaning that he was a cripple for life and must never do anything requiring appreciable exertion. The situation was not helped by an oversolicitous mother. After several visits to the clinic

and a very intensive educational campaign on the part of the doctor the boy was persuaded that he could resume his school work and best of all his piano lessons. This situation arises very frequently. It has become our custom to proceed cautiously in telling our patients about themselves and we have seen many instances where tact and patient explaining has accomplished more than all the drugs available.

Since the inception of the heart clinic over nine hundred new cases have been examined. Some of these are carried on in the clinic and some are referred back to the clinics or agencies that referred them to us. These cases represent over eight thousand visits up to April, 1936. There are between two hundred twenty-five and two hundred fifty active cases in the clinic, which is held twice a week. About two-thirds of the cases belong in the rheumatic group. Until the age of twelve years the children are kept in the children's cardiac clinic under the direction of the pediatric service. All cases have the benefit of a complete study including of course electrocardiograms, fleuroscopy, and chest films. In some instances the heart clinic functions as a consulting agency; the patients being referred back to their original clinics with the necessary information and recommendations. Those cases that are carried on in the heart clinic are encouraged to return at definite intervals and an appointment system is used. Whenever it becomes advisable patients are referred to the medical wards for bed rest. It is very certain that regular visits to the clinic with careful supervision of the patient's activity has in many instances prevented the onset of decompensation from over activity and has reduced the number of hospitalizations. Often in the rheumatic group frequent visits to the clinic have revealed slight rises in temperature and the early detection of recurrent rheumatic infections. These cases are immediately given bed rest, at home if the home is suitable, if not, at the hospital.

One of the great needs in Rhode Island at present is a hospital suitable for the proper care of chronic heart cases. Most of our present hospital beds are for acute cases and our most distressing problem is where to find adequate care for our cardiacs too ill to be cared for in their homes.

I feel that while our present methods of diagnosis are not apt to be improved very much there is a great need for better care of the severely crippled cardiac patient. The adequate training of the children with rheumatic or congenital heart disease for industry has been neglected. Certain of the arteriosclerotic heart patients should also be considered as cases for industrial rehabilitation.

## THE RHODE ISLAND MEDICAL JOURNAL

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## PROGRESS OF THE NEW STATE INSTITUTIONS AT HOWARD

The building program at the State Hospital for Mental Diseases at Howard is a rare tribute to the men in charge who have for many years been planning it. Dr. Arthur P. Noyes, its former director, and Dr. Seth Howes, the present director, have for many years visualized and planned for the program now being carried out. Dr. Charles MacDonald, director of this particular branch of the State Institutions, is directly in charge of the work.

The population of the State Hospital is 2,417. This number in the present buildings is fifty per cent overcrowded. Until the buildings are completed they are even more overcrowded, because of the new work of remodeling which puts out of commission several of the old wards and buildings. When everything is completed Rhode Island will have a hospital for mental diseases which will enable it to carry on the highest type of work for the mentally ill. It will permit the men in charge of mental diseases to set up the atmosphere so necessary for adequate work among the mentally ill. "Atmosphere" is gained by having contented employees, a spirit of quiet understanding and of co-operation with patients already much disturbed by problems in their lives with which they have been unable to cope. It means pleasant living quarters, facilities for proper segregation and the wherewithal to create the modified environment which is so necessary for their cure.

The buildings first seen from Reservoir Avenue are a group of five houses for married physicians. This will enable the superintendent to keep the better type of medical man contented and happy in his work. The large building across the entrance road from this group of five is to be a psychiatric clinic where acute cases will be treated. In this building

will be done intensive work on cases which can be cured and discharged in a relatively short time. In this building new admissions will be seen and placed in the proper wards. Going along the entrance road the next building encountered is a chapel and auditorium to seat twelve hundred. It will contain a pipe organ and a stage for entertainments. There is a possibility that in the basement later on club rooms for the employees will be established. Below the physicians cottages is a building planned as a hospital staff house occupied by single physicians and heads of the various departments such as social workers, occupational therapists and superintendent of nurses. In this building will be the staff dining room and lounge. On the road leading to the main hospital and near the water tower will be a building for tuberculous patients. Next to this is the medical and surgical building, including a dental laboratory, X-ray and physiotherapy equipment, rooms for nose and throat work, wards for the patients and employees and an up-to-date, completely equipped operating room. Only medical and surgical cases will be handled in this building. In the past it has been necessary to send sick patients to the infirmary or to put them in rooms off the wards.

Across the road from this building are two large plants to be used as employees' dormitories. They will contain quarters for one hundred and forty employees each. Between the chapel and the employees' dormitories is the new administrative building. On the site of the old barn which has been moved down to the farm will be built wards for the better type of male patients who have the liberty of the grounds. In this building it is hoped there will be a bowling alley, pool tables, game rooms, barber shops and locker rooms. The old ward building next to the administration offices is having another story added to it to relieve congestion among long-stay patients.

In back of the present administration building the dining room is being made into a cafeteria to facilitate service in a more pleasing environment. This will enable the patients to enjoy hot food and also will be economical. In the basement of this building is a new refrigeration plant. In the yard of the female ward the chapel is being remodeled for the continued treatment of quiet patients. It will also contain quarters for supervisors and adequate storage room for baggage. Going down Pontiac Avenue there are being built two large wards, both for chronic patients of the better type with all the setup for approved occupational and psycho-



therapy as well as gymnastic equipment. Farther down Pontiac Avenue are being built two immense wards for complete segregation and classification of the most disturbed patients both male and female. They are to contain six wards of forty beds each. A new garage and storehouse is being built, the storehouse for supplies and salvaged material to be used as needed. To the middle of the farm, on a little rise, have been moved the old cow and horse barn. To it has been added a new cow pavilion which will enable an increase in the herd of cows. This will produce milk for almost the entire population of the hospital. It also gets the barn away from the ward buildings. A canning plant was asked for but the appropriation would not allow for it. It is of interest to know that thousands of gallons of home-grown products are canned at the state hospital yearly.

All of these buildings have been made possible by the P.W.A. grants; in all, about four and a half millions are being spent at the state hospital alone. Forty-five per cent is paid by the State and the rest is supplied by the Federal Government. It is being urged that the work be completed by this Fall. It is felt that this will be impossible and that the final date of completion will be a year from this Fall. From the appearance of things in general the work is being carried on efficiently and with as much speed as is compatible with working conditions. One employees' dormitory is almost done and buildings all the way from bare foundations to brick finish can be seen. But to ask for definite dates of completion here is asking an impossible question. Needless to say, however, everyone engaged in this work realizes its need and its importance. One gets the impression of earnestness and concentration on the task at hand.

G. L. YOUNG

#### SUNLIGHT AND HEALTH\*

Ushered in by unparalleled publicity and sales activity on the part of the manufacturers of apparatus, offices were equipped with innumerable quartz lamps, ultra violet lights and machines for providing a variety of modalities most of which had only the label of the manufacturer to guarantee just what physical forces were placed in the hands of physicians. This branch of physical science has gone through the usual period of trial and proof

leaving us hardly the wiser for the experience. We have heard both sides of the story and seen both sides of the shield. We have seen people tanned and detanned. Some of them "thought that at the time it helped them." Others regretted the expenditure. Seldom, however, have physicians relied entirely upon light for their treatments. We rejoice that improved diet and hygiene, as well as what was supposed to be more specific therapy, have almost always been employed for general physical upbuilding. There has been a considerable degree of uncertainty in the qualities of energy employed by physio-therapists. Even the purveyors of instruments and apparatus seem to be rather hazy when questioned regarding wave lengths and frequencies which should be as familiar to physicians as they are to radio fans and hams. Fortunately very few of the more recent applications of the ultra violet end of the wave spectrum are harmful for they do not penetrate nor are they noxious. X-ray burns are now rarely seen for operators have learned to be very strict in their handling of the low rays. Among the most remarkable cures accomplished in recent years are those of dermatophytosis when treated with the quartz lamp which would seem to be very much like the "Finsen lamp" of 40 years ago. With this apparatus we evidently have a wave length and frequency which makes short work of the adult organism and its mycelium. Not since he first saw the membrane of diphtheria curl up and disappear under antitoxin has this writer seen a pathological phenomenon so striking in its resolution. Occasionally one sees the rapid disappearance of an epidermoid carcinoma after a single exposure to the X-rays or to radium. The effects of X-ray in the etiology of cancer is only too well known. Fortunate were those who learned their lesson early in their professional lives and protected themselves from super-radiation. It would seem that there was not nearly enough use made of the X-rays after operations for breast cancer. No one who has seen patients live for fifteen and twenty years after breast operations, seemingly because of post-operative X-radiation, will allow himself to be persuaded that it is not a beneficial therapeutic measure and worthy of more general adoption.

The "Short Wave" is quite new to us. Within a very few years it has been observed that those experimenting with waves under two metres experienced pains in the legs and back, lethargy and

\*With apologies to The Journal A. M. A.



malaise. We now feel that these symptoms were caused by increase in tissue heat remote from the source of the impulse. It is not easy to obtain accurate information from those who employ these recent discoveries and modifications of energy. Many claims are so extravagant as to be unconvincing at the outset. Yet they must be recognized and acknowledged. The physio-therapist must know what he is using, he must furnish proof of his diagnosis and clinical result. Not long ago we heard of a "long case" in which all sorts of curative methods had been tried in which X-ray showed the usual appearances of hypertrophic arthritis, to the confusion of the diagnosticians and the mortification of the patient, had the doctors "told on him." It might seem that many physio-therapists are reluctant to talk about their cases even to the physician who referred the case. This attitude is rapidly increasing in the profession and is probably due to the fact that many are too busy to impart their views and the result of their greater experience to the less well informed. Let us omit from our speech "a certain number of cases" for it is not a certain number at all but an occasional case and often a rarely occasional case at that. After reading bug-bear warnings regarding over-exposure to the sun's rays, we may rejoice that sunburn is not as common as one might think and that insolation is so uncommon as to occasion surprise and remark. From now on one may store away radiant energy which will hopefully continue its benefits for three or four months after the indoor life begins again. And who shall say what part recreation and distraction adds to the hygienic benefits of the good old summer time?

Perhaps in this hatless and clotheless era the scientists have made too much of theory and have swung too far in their rhythmic alternations of thought, but always with the greatest good and for the greatest numbers in mind. At all events we shall absorb all the radiant energy possible and store it away against darker days to come.

W. L. C.

#### COMMENT UPON MEDICAL TOPICS

MALFORD W. THEWLIS, M.D.

*The Ambulant Treatment of Hernia.* Bratrud, *Minn. Med.*, 18: 441, 1935, states that injection is a safe and effective method of eradicating certain types of hernias, if proper technic is used, but there is danger of complications if details are not adhered to.

#### *Discussion of Dr. Snell's Paper*

DR. RUSSELL S. BRAY: Dr. Snell has already contributed much of value to our knowledge of the functions and diseases of the biliary tract. Tonight he has presented facts which tend to clarify the perplexing problem of post-cholecystectomy pain. Probably the most of us are called upon to console and to treat the victims of gall bladder disease. When an unquestionable diagnosis of cholecystitis has been made we must then endeavor to prescribe that form of therapy which will afford satisfactory results.

A recent survey of a group of our operated cases has convinced me of the necessity of exercising greater care in the selection of cases for surgery. For instance, of twenty-three cases of non-calculous cholecystitis, operation afforded satisfactory results in only about 50% of the group. For the most part these patients presented mild symptoms. Histological study of the sectioned gall bladders revealed only moderate pathological changes. It was quite apparent in this group that the stigmata of an unstable sympathetic system had received little consideration.

On the other hand, of a group of forty-four cases of calculous cholecystitis, surgery afforded complete relief in about 85%. Seven of this group returned for further treatment. By employing diagnostic biliary drainage we were able to find evidence of duct calculi in two instances. Re-operation verified the findings. The biliary aspirates of the remaining cases revealed interesting findings, such as, desquamating columnar cells, excessive mucus, and the recovery of many mucoid tubular casts. We felt that these findings signified a residual cholangitis, but most likely the abnormal precipitants were the result of changes occurring in bile ducts which had been subjected to frequent spastic states.

A group of cases of acute cholecystitis presented interesting features. As surgery seemed inadvisable, biliary drainage by intubation was instituted. The results were quite surprising. Temperature subsided, the leukocyte count lowered, pain relieved and muscle rigidity and spasm lessened. As in most instances no gall bladder fraction was recovered, I had been unable to explain the temporary but splendid results. Very likely, as Dr. Snell has pointed out, the favorable outcome was due to decompression of the biliary tree.

In closing, I believe that Dr. Snell will agree with me in urging a more careful selection of cases for surgery, a thorough diagnostic study of the gall bladder suspect, and the realization that gall bladder disease may frequently play but a small part in a more generalized systemic affection.

### Rhode Island Department of Public Health

Approved local health services to every community in Rhode Island will be realized in the very near future under a plan adopted by the State Department of Public Health, with the cooperation of the United States Public Health Service. The plan provides for the establishment of three health units so located as to most conveniently serve the populations in their respective areas. With the exception of Providence and Warwick, there are no communities in the State that have full-time health officers. To compensate for the deficiencies which naturally appear under this system, the proposed units, which are branches of the Department of Public Health, will offer a complete full-time local health service. These units will not engage in the practice of medicine nor will they replace practicing physicians or other health or welfare workers. The personnel of these units will strive to assist existing agencies such as physicians, nursing organizations, parent-teacher associations and local health officers. Each unit will serve a purely public health function which may be defined as the prevention of disease, the prolongation of life and the promotion of physical and mental efficiency through organized community effort. The personnel of each unit will include a physician as director, a sanitary inspector, one or more public health nurses and a clerk technician. Each of these persons shall be especially trained and fully qualified for their individual responsibilities. The district health officers in charge of the three units are the following:

*North District Health Unit:* James P. O'Brien, M.D., graduate University of Vermont College of Medicine, 1925, licensed in Rhode Island in 1926; address, Woonsocket, Rhode Island.

*Southeast District Health Unit:* Joseph Castrovano, M.D., graduate University of Oklahoma School of Medicine, 1929, licensed in Rhode Island, 1930; Rockwell House, Bristol, Rhode Island.

*South District Health Unit:* Raymond McAteer, M.D., St. Louis University School of Medicine, 1933, licensed in Rhode Island, 1934; Hazard Memorial Building, Peacedale, Rhode Island.

In accordance with provisions of the Social Security Act, scholarships are to be issued through the State Departments of Public Health for this purpose. Physicians interested in a public health career and desiring the opportunity to train for such should apply to Dr. Edward A. McLaughlin, Room 319, State Office Building, Providence, Rhode Island.

### Personal Notes

The outing of St. Joseph's Hospital Staff Association was held at the Rock Cafe, Rocky Point, on June 17. About seventy-five members were present.

Dr. Rudolph Holmes, Professor Emeritus of Northwestern University Medical School, recently spent a day visiting the Providence Lying-In Hospital.

Dr. Murray S. Danforth and family are spending the summer months in Norway and Sweden.

Dr. Robert H. Whitmarsh and family are on a vacation in Europe. They are expected home on August 10.

Dr. Joseph L. Dowling and Dr. John F. Kenney are on a trip through Norway, Sweden, Denmark, Finland and Russia. They are to return around Labor Day.

**Married:** June 20—Dr. John F. Streker and Miss Winifred Smith, R.N., in Fall River, Mass. They are residing at 5 Hanover Street, Providence. June 28—Dr. Hugh J. Hall of 1283 North Main Street, Providence, and Miss Helen Thompson. July 7—Dr. H. Frederick Stephens of the Rhode Island Hospital, and Mary Emma, daughter of Dr. and Mrs. George W. Van Benschoten.

**Born:** June 21—To Dr. and Mrs. Banice Feinberg, a daughter. June 26—To Dr. and Mrs. Herman P. Grossman, a daughter. June 27—To Dr. and Mrs. Francis D. O'Connell, a second son. July 1—To Dr. and Mrs. Julius G. Kelley of Barnstable County Sanatorium, Pocasset, Mass., a second daughter. July 2—To Dr. and Mrs. Louis Sage of North Scituate, a son. July 19—To Jonathan B. Richards, son of Justice Paul W. Richards of Iowa, and Elizabeth, daughter of Dr. Albert H. Miller, a son. July 19—To Dr. and Mrs. Arthur E. Hardy of Pawtuxet, a daughter.

(Continued on page XIII of the Advertising Section)

### RECENT BOOKS

**BEWILDERED PATIENT**, by Marion S. Newcomer, M.D., with an Introduction by Henry S. Patterson, M.D. Hale, Cushman & Flint, Boston and New York, 1936. Cloth, Price \$1.75.

This is a medical book written primarily for the public. Although the book was written from a physician's viewpoint, the author has a thorough understanding of the patient's problems and real sympathy with him.

The language is clear and easily understood and all technical terms are fully explained.



After an introductory chapter, germs and their transmission and control are discussed. A description of the body's resistance to disease follows. The chapters dealing with nutrition are particularly valuable. Besides the usual calories, proteins, carbohydrates and fats, the author has added several interesting pages on the subject of vitamins and diseases due to the various vitamin deficiencies. In the same chapter the role of the salts of the body, especially calcium, is made clear. Other chapters on sex life and one's mental make-up are good.

The sections pertaining to choosing a physician and on the relationship of doctor to patient are of most interest to the medical profession. The idea of having for a physician and medical advisor a high grade, honest, conservative man in whom the patient can have sufficient confidence to trust the management of his health, is developed. The methods of getting the names of reputable doctors are also dealt with in detail. Doctors, too, are given a little sound advice on how to secure and hold a patient's trust.

Good short discussions of the treatment of the commonest emergencies are given at the close of the book. In the appendix the meaning of several medical terms, such as blood pressure and basal metabolism, is explained.

If *BEWILDERED PATIENT* could be widely read by the laity, the fads and cults would meet with effective opposition.  
—G. W. W.

A TEXTBOOK OF SURGERY, by American authors and edited by Frederick Christopher, B.S., M.D., F.A.C.S., Associate Professor of Surgery at Northwestern University Medical School. Chief Surgeon, Evanston (Illinois) Hospital. 1608 pages with 1349 illustrations on 730 figures. Philadelphia and London. W. B. Saunders Company, 1936. Cloth, \$10.00 net.

An excellent text-book of Surgery for the Medical School student and general practitioner splendidly edited by Dr. Frederick Christopher and beautifully written by 184 contributors who are leading men in their special fields. The book covers every phase of surgery not in detail but sufficiently so that it becomes a handy reference book for the general surgeon or specialist. When a subject is not completely covered, adequate references are given at the end of each subject discussed. A list of the chapters follows which gives a clear idea of the subjects covered:

Inflammation and Repair of Tissue; Bacteriology of Surgery; Anthrax; Fungus Infections and Tularemia; Thermal, Chemical and Electric Injuries; The Skin and Subjacent Tissues; Tendons, Tendon Sheaths and Fascial Spaces; Muscles and Ligaments; The Bursae; The Vascular System; The Lymphatic System; The Endocrine System; The Nervous System; Orthopedic Surgery; Amputations and Prosthesis; The Bones; Fractures; Dislocations; Plastic Surgery; Roentgenology; Gynecology; The Head; The Neck; The Breast; The Thoracic Wall, Pleura and Lungs; The Heart and Pericardium; The Mediastinum, including the Esophagus; The Abdominal Wall, The Peritoneum; The Stomach and Duodenum; The Small and Large Intestine; The Rectum and Anus; The Liver and Biliary System; The Pancreas; The Spleen; Hernia; The Genito-Urinary Tract; Aseptic Surgical Technic; Minor Surgical Procedures; Anesthesia; Preoperative and Postoperative Care.

A. W. E.

FERRANNINI A. *MEDICINA ITALICA* (Priorità di Fatti e di Direttive), (*ITALIC MEDICINE—Priority of Facts and Directives*). Publisher: Ufficio Stampa Medica Italiana, Milano, 1935, Lire 25 (about \$2.00).

With the spirit of the new renaissance in Italy no stone is left unturned to put before the eyes of the world unknown or forgotten Italian contribution to the development of human knowledge.

The 295 pages of the book compose a concise list of events or discoveries in which Italians took part as forerunners of a discovery or as actual discoverers. The names of Morgagni, Malpighi, Banti, Forlanini, Ducrey, Botallo, Castellani, are followed by others less known or completely unknown or forgotten as Selmi (1844) who first spoke of a colloidal status; Palletta (1812) who was the first to remove successfully a cancerous uterus; Diamare (1889) and Vassale (1891) who discovered the function of the pancreas islands, so starting the numerous researches culminated in the preparation of insulin by Banting; Ruggi (1899) who was the first to perform a perivascular sympathectomy; Cavagnis (1878) who performed the first lumbar puncture; Fattori (1832) who first used the dental drill, etc.

An item of present interest is that the first description of a quintuple pregnancy is due to Leonardi in 1830.

A bibliography and index follows. The book is full of interesting details and an English translation would be welcomed.

MEDICAL PAPERS, dedicated to HENRY ASBURY CHRISTIAN from his Present and Past Associates and House Officers at the Peter Bent Brigham Hospital. Waverly Press, Inc., Publishers.

This book dedicated to Dr. Christian was written to reflect in part what his influence and stimulating guidance has called forth from his younger and less experienced associates at the Peter Bent Brigham Hospital. It encompasses an expansive field of interests, compiled as it is from the investigations of men in many branches of medicine. Both those who are primarily seekers and dispensers of new knowledge and those who are primarily interested in the art of practice are well represented, and the book provides ample information for both types of readers.

The articles, of which there are a hundred-odd, are arranged according to general subject in a conveniently bound volume of one thousand pages. They include all types, from relatively isolated case reports with brief bibliographical reviews to studies of extensive series of related cases, summaries of the present knowledge concerning certain especially controversial subjects, discussions of valuable diagnostic points and therapeutic procedures, reports of original researches into various conditions, and essays of general interest in medicine. The last article is a brief biographical sketch expressing appreciation of Dr. Christian's accomplishments. Then follows a register of the present and former members of his staff.

The various articles have little in common amongst themselves except that practically all are concise, conservative in their conclusions, and are appended by valuable up-to-date bibliographies. The volume represents an example of one of the greatest of human achievements whether it be in a profession, in business, or in general social contact, that is, the ability to inspire and guide others conscientiously to carry out constructive activities.  
—J. C. H.



## RHODE ISLAND MEDICAL SOCIETY

### Minutes of the One Hundred and Twenty-fifth Annual Sessions

#### Meeting of the House of Delegates

(Continued from page 112)

#### Report of the Committee on the Library

During the past year there have been added to the Library, by gift and purchase, 472 volumes; 85 volumes were converted by binding, and a large number of unbound JOURNALS and pamphlets were also added. Especial mention should be made of the fact that all books sent to the Editor of the RHODE ISLAND MEDICAL JOURNAL for review are afterward deposited in the Library; in this way, some very desirable books are obtained.

There have been catalogued to date 7,458 books and JOURNALS, not including pamphlets. The total number of cataloguing cards up to the present time is 18,034.

The work of the Library is increasing steadily. In the past year there were 1651 visitors as compared with 1525 the previous year. In addition to this, there were, as has been the case in the past few years, innumerable telephone requests for information. The Library is becoming more and more a headquarters for all matters medical in the community, and is serving as a general information bureau.

We have a large number of books of more than ordinary value, many of which have been kept in a locked case in the Miller Room. This case has now become filled, and the recommendation is, therefore, made that a second case be procured, in which other books may be safeguarded.

Respectfully submitted,

H. G. PARTRIDGE, *Chairman*

#### Report of the Committee on Publications

The meetings of the Committee have been held with the Editor and Business Manager, also a general meeting of the entire Editorial Board. Dr. Albert Miller has been appointed Assistant Editor. The following Associate Editors have been appointed as representatives of their District Societies:

Dr. G. G. Dupre, Woonsocket District.  
Dr. Thad A. Krolicki, Pawtucket District.  
Dr. E. V. Murphy, Newport District.  
Dr. George L. Young, Kent District.

Under a ruling of the Council, receipts for the JOURNAL have been taken over by the Treasurer of the Society and payments have been made by the Treasurer for the carrying on of the business. As yet no budget has been adopted. Arrangements have been made with the Trustees of the Fiske Fund for the publication of the Fiske Fund Essays as supplements to the JOURNAL.

Respectfully submitted,

LUCIUS C. KINGMAN, *Chairman*

#### Report of the Educational Committee

During January and February of this year, a series of free public lectures were given each Sunday afternoon at the Medical Library. The speakers and their subjects were as follows:

Dr. Morris L. Grover—"Food Poisoning."

Dr. Clifton B. Leech—"What You Should Know About Heart Disease."

Dr. Paul Appleton—"Modern Obstetrics."

Dr. Guy W. Wells—"Endocrine Glands."

Dr. C. A. Stuart—"Bacteria in Health and Disease."

Dr. Frederick V. Hussey—"The Significance of Abdominal Pains."

Dr. Roland Hammond and Dr. Charles L. Farrell—"Medical Economics."

Dr. U. E. Zambarano—"Tuberculosis."

The attendance was large enough to warrant continuing the lectures another year.

At the request of Dr. Hammond, the Committee is planning to bring the question of State Medicine before the public. To do this, it is arranging to have several physicians present this subject to various civic organizations throughout the State.

Respectfully submitted,

HARVEY E. WELLMAN, M.D., *Chairman*

#### Report of the Trustees of the Medical Library Building

The Trustees of the Rhode Island Medical Society Building held but one meeting during the year. At this time they decided against using it as headquarters for a PWA project.

A leak in the roof caused some concern on account of our newly decorated hall. After a careful investigation it was found to be due to loosened mortar around the brick-work. This has been repaired at an expenditure of \$130.00.

The ceilings in the janitor's apartment have been refinished and necessary plumbing repairs have been made.

Respectfully submitted,

W. C. ROCHELEAU, *Chairman*

### Report of Committee on Medical Legislation and Economics

The Committee held a formal meeting and considered recommendations to be submitted to the Director of Labor for inclusion in the occupational disease act; and also suggested the formation of a committee to cooperate with the Director of Labor in adjusting difficulties arising from claims for compensation. The report of this meeting has been submitted previously and is published in the last issue of the JOURNAL.

Your Secretary prepared a statement regarding Naturopathy which was distributed to members of the Legislature in opposition to the Naturopathy Bill S-76. Public hearings on the bill were put off several times and finally failed to materialize. However, your Chairman and the Director of Public Health appeared and were prepared to offer argument.

Most of the bills affecting health which were introduced during the last session of the legislature died in committee.

H-842 makes changes in the practise of Optometry—in the main this is a good bill.

H-714 regulates the practise of Chiropody and as finally passed does not concern us particularly. However, if it were not for the alertness of the Health Department a Chiropody Bill might have passed which would have permitted Chiropodists broad powers even to leg amputation.

Variations in the Narcotic Drug and Venereal Disease Laws were made at the suggestions of the Health Department.

Occupational diseases were included in Act H-857 as amended.

An Act H-759 vacated Medical Examiners appointments and placed the new appointees under the Department of Justice.

The Basic Science Law died in committee—chiefly as result of opposition from many sources who succeeded in creating the impression that the Act was discriminatory. The attitude of the committee toward this legislation has been that it is a public health measure and should emanate on the Health Department. It should be self-evident that no medical legislation will pass unless and until the State Medical Society actively interests itself in guiding it through the Legislature.

The following list of health bills and their disposition is hereby appended.

H-591—Occupational Diseases. Dead.

H-597—Health Insurance. Dead.

H-598—Health Insurance. Dead.

S-27—Hospital Liens. Dead.

S-289—Osteopathy. Dead.

H-780—Maternity Hospital. Passed House. Died—Senate.

H-803—Registration of Nurses. Dead.

H-826—Marriage Blood Test. Dead.

H-842—Regulation of Optometry. Became Law.

H-667B—Camps and Beaches. Dead.

S-76—Practise of Naturopathy. Dead.

H-714—Regulation of Chiropody. Became Law.

H-690—Veterans Hospitals. Became Law.

H-743—Medicines and Poisons. Dead.

H-744—Pollutions of Water. Passed House. Died—Senate.

H-745—Basic Science Law. Dead.

H-746—Optometry. Dead.

H-747—Narcotic Drug. Became Law.

H-748—Medical Practise. Suspension of License. Dead.

H-953—Abortion. Dead.

H-893—Ice Control. Vetoed.

H-857A—Occupational Diseases. Became Law.

H-749—Venereal Diseases. Became Law.

H-750—Food and Drugs. Dead.

H-752—Inspection of Food Handlers. Dead.

S-162—Occupational Diseases. Dead.

H-759—Medical Examiners Act. Became Law.

S-179—Liens of Physicians and Nurses. Dead.

S-181—Medicines and Poisons. Dead.

S-192—Chiropody. Dead.

Respectfully submitted,

CHARLES L. FARRELL, *Secretary*

This report was discussed by Doctors Oddo, Rocheleau, Champlin, Wells, Miller, Farrell, and McCann. The general consensus of opinion of those who took part in the discussion was favorable to having a lobbyist to watch out for medical legislation introduced in the State Legislature.

### Report of the Committee on Maternal Mortality

With this year, a five year investigation of maternal mortality has been completed. This study has been carried on as has been reported before. Copies of all death returns in which pregnancy has been listed as the actual or contributing cause have been furnished the committee. From study of the hospital record when the patient has been in the hospital and from conversation with the attending

physician, such information as was regarded as necessary was obtained and transcribed on cards.

The success of the survey has been entirely due to the willingness and cooperation of the attending physicians.

During the five years 1931 to 1936, 320 cases were investigated. Of these 34 were reported as non-obstetrical deaths, the pregnancy being merely a contributing factor. The others were classified as maternal deaths listed under the headings of The International List of Causes of Death 140 and 150 as follows:

140	Abortion with Sepsis	47
141	Abortion without Sepsis	17
142	Ectopic Gestation	12
143	Other Accidents of Pregnancy	1
144a	Placenta Praevia	11
144b	Other Hemorrhages of Pregnancy	26
145A	Puerperal Sepsis	48
146	Puerperal Albuminuria and eclampsia	45
147	Other Toxemias of Pregnancy	17
148	Puerperal Phlegmasia alba dolens, embolus	21
149a	Caesarian section	12
149b	Others under this title	22
150	Other and unspecified condition of the puerperal state	7

It must be realized that the Bureau of Vital Statistics in classifying these deaths had as their only criteria for judgment the information on the death return. This was often incomplete, at times inaccurate, and others indefinite and misleading. The accuracy of vital statistics would be greater if more care were used in making the death returns.

On the other hand, statistics are compiled for the most part by clerks who have had no medical training or background. The classifying is done by finding the heading in the International Causes of Death most closely approaching the statement on the return. Where more than one cause is stated the condition given precedence in the Combined Causes of Death is credited with the death. Of course, all these figures are checked by the Bureau in Washington. How much correcting is done there we are unable to say. It seems likely that with so inflexible a system a greater uniformity, if not accuracy, will be obtained provided that the classifying is done by people of equal training and similar points of view.

The deaths occurring during the five year period are now being studied as to actual cause of death and as to other factors which have been suggested by the study. It is hoped that this material will be prepared for a paper to be given in the Fall.

The actual work of investigating and classifying these 320 deaths has been done by Dr. Goldberger. The committee would like to continue its investigation for another five years and respectfully requests that the committee be not discharged at this time.

EDWARD S. BRACKETT, M.D., *Chairman*

It was voted to accept the report of the Committee on Maternal Mortality, and continue the Committee for five years.

#### Report of Committee on Public Health Clinics

During the past year your committee has continued its efforts to obviate conflicts between the private practise of medicine and other agencies concerned with health.

The American Red Cross Highway First-Aid Stations were discussed at a meeting of the committee with representatives of the Red Cross. Their plan was approved in principle and the committee was satisfied that there were the necessary safeguards to prevent interference with the right and prerogatives of the private practice of medicine and to guard against abuses which might arise from lay participation in medical First-Aid work.

Sub-committees have contacted the Providence District Nursing Association, the Providence Public Health Department, and the Providence School Health Department. The work of these organizations was analyzed carefully and viewpoints were exchanged at these conferences. Your committee is satisfied that there exists no definite conflict between these organizations and organized medical practice. We are certain that there are many and sufficient safeguards employed which are satisfactory except in an occasional instance such as is liable to occur in any organization.

We are satisfied that there exists sincere desire to cooperate with the medical society at all times in adjusting differences between these organizations and the medical profession.

The chief difficulty which your committee has to contend with is the tendency of lay or semi-professional groups engaged in health work to initiate programs without consideration of all the factors involved and without contact with the Rhode Island Medical Society. For an example, the tuberculosis program planned for East Providence Schools was unknown to the medical society until the president was notified through other channels. Your president and chairman held a meeting with



East Providence physicians and the situation was satisfactorily adjusted.

Following this meeting the East Providence Physicians Association was formed and is similar in scope to the Caduceus Club of Pawtucket—whose aims are to “crystallize the opinion of medical men on problems affecting their welfare in relationship to the community and to each other.”

These organizations are in line with the suggestions contained in our last annual report wherein we said:

If the medical men in any given community will unite in such a project it will:

1. Dramatize their relationship to the health of the community.
2. Emphasize the “family-physician” relationship.
3. Eliminate the “clinic problem.”
4. Advance the health of the community more rationally and more expeditiously than the slower process of State clinics with its attendant discordant note of interference with problems which should and could be handled by local physicians.

In the furtherance of our plan to have all health and medical activity originate only through or in cooperation with representative medical authorities of this Society, your committee met with representatives of all the nursing and health organizations in this State. Problems affecting our relationship were freely discussed and the interchange of viewpoints was mutually helpful.

The Red Cross-Tuberculosis League and all nursing organizations of the State were represented and your committee was requested by them to act as a clearing house for complaints from the medical profession as to the activities of these organizations and also to receive suggestions as to future handling of health problems.

We in turn requested them to bring in to us the complaints against medical men and medical practise which they discover in their own field. We plan to meet again in the near future and together we may evolve a solution to any differences of opinion and suggest means of correcting situations threatening to disrupt harmonious co-operation of medical, lay and nursing organizations.

There is no question but what the rank and file of medical men are not agreed on medical economics, State and local health work, preventive medicine, nursing and other health activities. Until such time as the physicians unite and agree on a standard accepted procedure for community health work

and decide their degree of cooperation with it we can make but little headway on this committee in our efforts to prevent the usurpation of preventive medicine by groups outside the private practise of medicine.

Again we offer our advice and assistance to groups of physicians in the divisions of territories within the different district societies for the formation of medico economic clubs.

The Social Security Act provides for the extension of Federal participation in preventive public health services. The amount suggested to be appropriated is about double the present total of all Federal expenditures for public health and this entire amount is intended to be used for the prevention of preventable sickness.

The State Director of Public Health assures us that the program at present is available to all citizens regardless of their ability to pay. It is the desire of your committee that preventive medicine be done by the profession as individuals and not by the State; and the State in turn is willing to cease its activities in this direction when the profession becomes active and demonstrates its ability to do this work.

The Federal Government is insistent that public health programs continue and will grant money to states for extending health services to maintain adequate public health programs.

Your committee can and has obtained the cooperation and assistance of the State Director of Public Health in furthering our endeavor to prevent the encroachment of the State on private medical practise; but unless more effort is evinced by the profession at large to assume a greater share of responsibility for the public health we are faced with the actuality of a form of State medicine.

Your committee cannot go into the district and organize clubs but it is ready to assist in so doing. It has been suggested by a member of this committee that the Society purchase a mimeograph and send short pertinent notes to the profession at intervals to keep them informed as to what is transpiring and thus focus their attention on the ever-changing picture of medical practise today.

Respectfully submitted,

CHARLES L. FARRELL, *M.D.*, *Chairman*

The Secretary called attention to the fact that with the death of Dr. Julian A. Chase, some provision should be made for the blanket insurance policy issued by the U. S. Fidelity & Guaranty Co. to the members of the Rhode Island Medical Soci-

ety to carry the name of a member of the Society. On motion made and seconded, it was voted that the Secretary be instructed to notify the Insurance Company to issue the policy in the name of the incoming Secretary, Dr. Guy W. Wells in place of Dr. Julian Chase.

On motion made and duly seconded, and amended, it was voted that the Rhode Island Medical Society request the Board of Trustees of all the hospitals in the State which have a qualified laboratory to consider the possibility of establishing a histo-pathological service to which physicians and hospitals not maintaining laboratories for the purpose, may send tissue specimens for examination and reports thereon upon a suitable schedule of fees, this service to be available until the establishment of other means for such laboratory work.

The following letter from the President, Dr. Roland Hammond, was read by the Secretary.

"To the House of Delegates,

Rhode Island Medical Society.

"In conversation with some of the officers and with the Committee on Education of the Rhode Island Medical Society, I have been impressed with the necessity of a program of publicity to furnish the public accurate information as to medical facts and progress.

"A high grade newspaper friendly to the medical profession, has offered the use of its columns, and has suggested a method of popularizing medical knowledge which in no way offends our code of ethics nor our sensibilities.

"The procedure suggested is the appointment of a committee, to be known as the Publicity Committee, which shall continue to function without change of personnel for several years until the program is firmly established on a working basis. The functions of this Committee are threefold:

"(1) To obtain scientific papers read before the Rhode Island Medical Society and abstract them for publication in the press, using language intelligible to the laity. In order to avoid garbling of ideas and language such material must be given to the reporter in writing. The essayist may be asked to prepare two papers—one for delivery before the Medical Society, and one for publication in the public press.

"(2) To serve as a mouthpiece for the medical profession when the press desires an expression of opinion on some question of medical policy. (A specific instance is the decision of the Department of Public Health to discontinue certain laboratory

services, at which time the newspapers asked the officers of this Society and other physicians of the State to express an opinion as to the wisdom of abandoning these examinations. Under the scheme as outlined the press would contact one member of the Committee, who would be authorized to speak for the entire profession.)

"(3) To institute propaganda for the enactment of beneficial and the defeat of harmful legislation.

"This plan should be suggested to the District Societies for their action.

"I request your approval of this policy and the power to appoint such a committee.

Very truly yours,

ROLAND HAMMOND, M.D."

Dr. Russell S. Bray, a member of the Committee on Education, discussed the letter and urged that the committee which the President recommended be appointed.

It was voted that the President be empowered to appoint this Committee on Publicity. The following committee was appointed:

Dr. J. W. Leech, Chairman; Dr. R. S. Bray, Providence; Dr. P. P. Chase, Providence; Dr. Charles Bradley, Providence; Dr. G. G. Dupre, Woonsocket; Dr. Stanley Sprague, Pawtucket; Dr. A. M. Tartaglino, Newport; Dr. George L. Young, East Greenwich; Dr. J. W. Helfrich, Westerly.

On motion of Dr. DeWolf, and duly seconded, it was voted that the President appoint a committee of two to draw up resolutions with reference to the retirement of Dr. J. W. Leech from the office of Secretary of the Rhode Island Medical Society.

Committee appointed: Dr. Halsey DeWolf, Dr. Jesse E. Mowry.

Adjourned.

Respectfully submitted,

J. W. LEECH, M.D., *Secretary*

### Report of the Legislative Committee

Since the creation of the Committee on Medical Economics, the Legislative Committee of the Rhode Island Medical Society has been cooperating and acting with the Economics Committee. Therefore, the Legislative Committee is not presenting any report.

Respectfully submitted,

HERBERT E. HARRIS, *Chairman*

(The minutes of the June meeting to be continued in the September number.)



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**Personal Notes, Continued**

Dr. Thomas Dolan, graduate of the Memorial Hospital, has opened an office at 353 Thayer Street, Providence, for the practice of pediatrics.

Dr. Thomas A. Egan has moved his office from 604 Smith Street to 154 Francis Street, Providence.

Dr. Frederick J. Burns, graduate of St. Joseph's Hospital, has opened an office at Hillside Avenue and North Main Street, Providence.

Dr. Morgan Cutts has opened an office at 203 Thayer Street, Providence, for the practice of internal medicine.

Edward S. Brackett, Jr., Esq., has become associated with the firm of Stockwell, Chace and Yattman in the general practice of law.

*A Text Book of Psychiatry*, by Arthur P. Noyes, M.D., is now in its second edition.

**Hospital Residents:** Dr. Leo V. Hand, ex-resident anesthetist of the Rhode Island Hospital, has taken an appointment in the Department of Anesthesia of the Lahey Clinic.

Dr. Parker Carpenter, who completes his internship at the Memorial Hospital this month, will open an office in Bristol, R. I.

Dr. Robert S. Sherman of the Memorial Hospital has been at the State Hospital at Mattapan, Mass., for the month of July.

Dr. John H. Gordon has been appointed to the Out Patient Staff, Orthopedic Department, Memorial Hospital.

Dr. George E. Crane started duty on the Fracture Service, Rhode Island Hospital, July 1.

Dr. Harold Williams, ex-resident pathologist at the Rhode Island Hospital, has been appointed medical director at the State Hospital for Mental Diseases, Howard, R. I.

Dr. R. Lemley Garrod, graduate of the Rhode Island Hospital, has accepted an appointment at the State Hospital, Wallum Lake, R. I.

Dr. William Waters Teahan (University of Pennsylvania) of Holyoke, Mass., entered on his internship at the Rhode Island Hospital on July 15.

Dr. Ellsworth M. Tracy, who finished his internship at the Rhode Island Hospital on July 1, is vacationing with Mrs. Tracy in New Hampshire. On Sept. 1, he starts internship at the Providence Lying-In Hospital.

Dr. Edward McCarthy, graduate of the Memorial Hospital, has become third resident at the Providence Lying-In Hospital.

Dr. Jerome Ryan, completing his residency at the Providence Lying-In Hospital, has become admitting physician at the Rhode Island Hospital.

Dr. Samuel Bridgman of the Memorial Hospital is at the Reconstruction Hospital, New York City.

Dr. Charles G. Burr completed his appointment on the Fracture Service, Rhode Island Hospital, July 1.

Dr. V. Gerard Ryan, a graduate of Yale University School of Medicine, and Mr. Thomas Hersey, a third year medical student, are at Butler Hospital for two months summer internship. Following this, Dr. Ryan begins a two year internship at the Boston Psychopathic Hospital.

Dr. Nicholas D'Esopo, Yale, 1936, came to Butler Hospital in June for a six months internship.

Dr. Charles P. Fitzpatrick, clinical director of Butler Hospital, left the end of May on a leave of absence to study the problem of research in public mental hospitals throughout this country and Canada. This is being done under the direction of The National Committee for Mental Hygiene, and Dr. Fitzpatrick is to compile the report on research for that organization.

Dr. Ira C. Nichols, Butler Hospital, is acting clinical director during the absence of Dr. Fitzpatrick.

In order that the dignity and honor of the medical profession may be upheld, its standards exalted, its sphere of usefulness extended, and the advancement of medical science promoted, a physician should associate himself with medical societies and contribute his time, energy and means in order that these societies may represent the ideals of the profession.

*From the Code of Ethics of the A. M. A.*

**N**OVA ratio evulgandi interque se colligandi studia omnium gentium medica.

Nostra proposita:

Commentariis et ephemeridibus medicinae artis omnes notitias cognitionesque, quae opus sunt, praebemus, et ad omnia interrogata quam celerime respondemus.

Operam damus ut editores suos editos libros in populum proferre possint, medicis commentariis actisque ad studia eiusdem generis pertinentibus utiles.

Ad medicinae operum scriptores juvandos, ut eorum scripta in commentariis et ephemeridibus medicis cuiuslibet gentis edantur et longe lateque diffundantur curamus.

Certiores facimus medicos et medicamentorum officinis praefectos de omnibus rebus ad cognoscendum utilibus et de annuo subnotationum pretio; iis exemplaria petita mittimus et quae ratione suas res in medicinae acta cuiusvis gentis referre possint docemus.

Libenter adsumus iis, qui medicorum conventibus inter gentes praesunt, et in congressibus comparandis et in eorum propositis decretisque divulgandis.

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## Contents

Low Back Pain. Fiske Fund Prize Essay No. LXIX. By John G. Kuhns, M.D., Boston, Mass.

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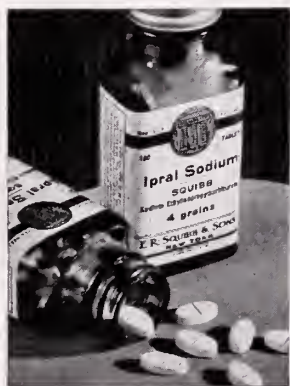
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# VITAMINS IN CANNED FOODS

## III. VITAMIN A

• The most characteristic evidence of severe human vitamin A deficiency, and one which is increasingly rare in this country, is xerophthalmia. Night-blindness, one of the manifestations that usually precedes xerophthalmia, has been recognized as a deficiency disease since the time of Hippocrates who described the disease, and its cure by eating liver. Infrequent reports of this disorder, however, still appear in the American literature. Most if not all of the symptoms accompanying a deficiency of vitamin A are thought to be the result of an impairment of the epithelial tissue (1). In this connection, a new method for the quantitative determination of this vitamin is based on the keratinization of germinal epithelia (2).

That vitamin A exerts an influence on the growth of human infants and children is also generally accepted.

As early as 1919, a relationship between vitamin A in plant foods and plant pigments was postulated. Research since that date has indicated that beta-carotene and some related compounds may be considered as provitamin A (3).

The vitamin A potency of fruits and vegetables is apparently due to their carotene

content, since vitamin A as such has never been found in plant tissue. Ingested carotene is believed to be converted into vitamin A by enzyme action in the liver of the animal (4), in which organ the vitamin is stored.

Vitamin A in the form of carotene may be present in yellow, green or red pigmented fruits and vegetables—in the two latter cases, the yellow color of carotene being masked by other pigments present. Color alone, therefore, is not always a reliable index of potential vitamin A potency.

Both vitamin A and carotene are relatively stable to heat but are subject to destruction by oxidation. However, foods of both animal and plant origin, when canned by modern methods, have been found to retain their vitamin A potencies in high degree (5).

In fact, in some instances, practically no loss of vitamin A potency can be detected by formal bio-assays (6).

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- (1) 1927. J. Exp. Med., 46, 699  
(2) 1935. J. Nutrition, 9, 735  
(3) 1929. Biochem. J., 23, 803

- (4) 1931. J. Biol. Chem., 94, 185  
(5) a. 1933. J. Am. Diet. Assoc., 9, 295  
b. 1931. J. Nutrition, 4, 267

- c. 1935. Am. J. Pub. Health, 25, 1340  
(6) a. 1925. Ind. Eng. Chem., 17, 69  
b. 1926. Ind. Eng. Chem., 18, 85

*This is the sixteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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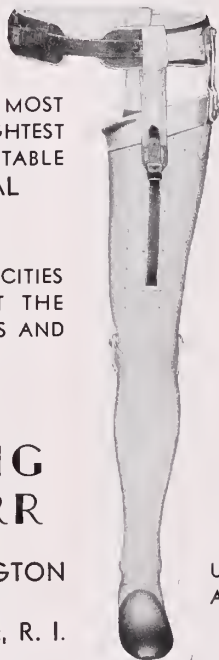
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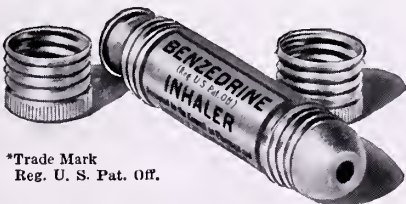


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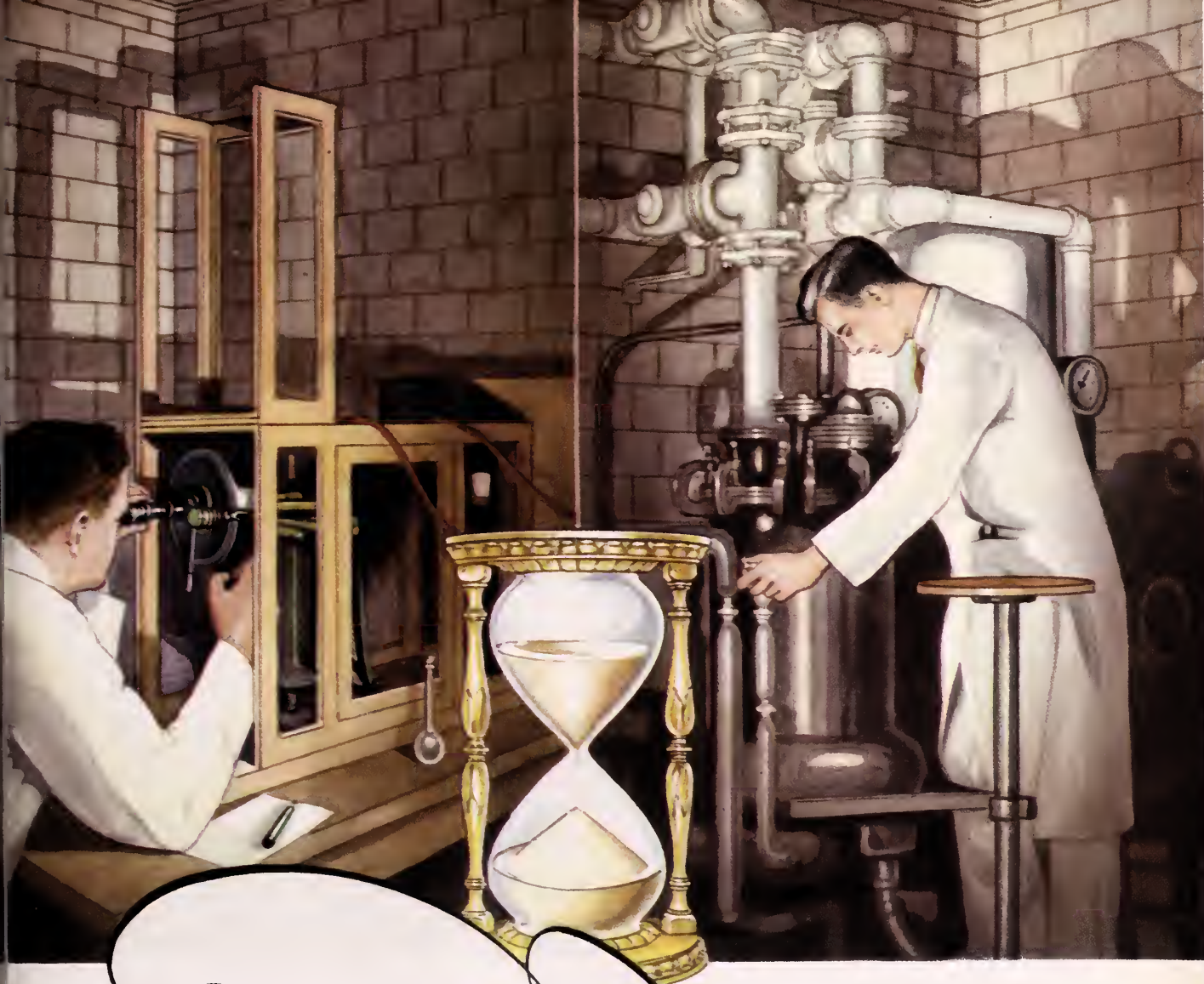
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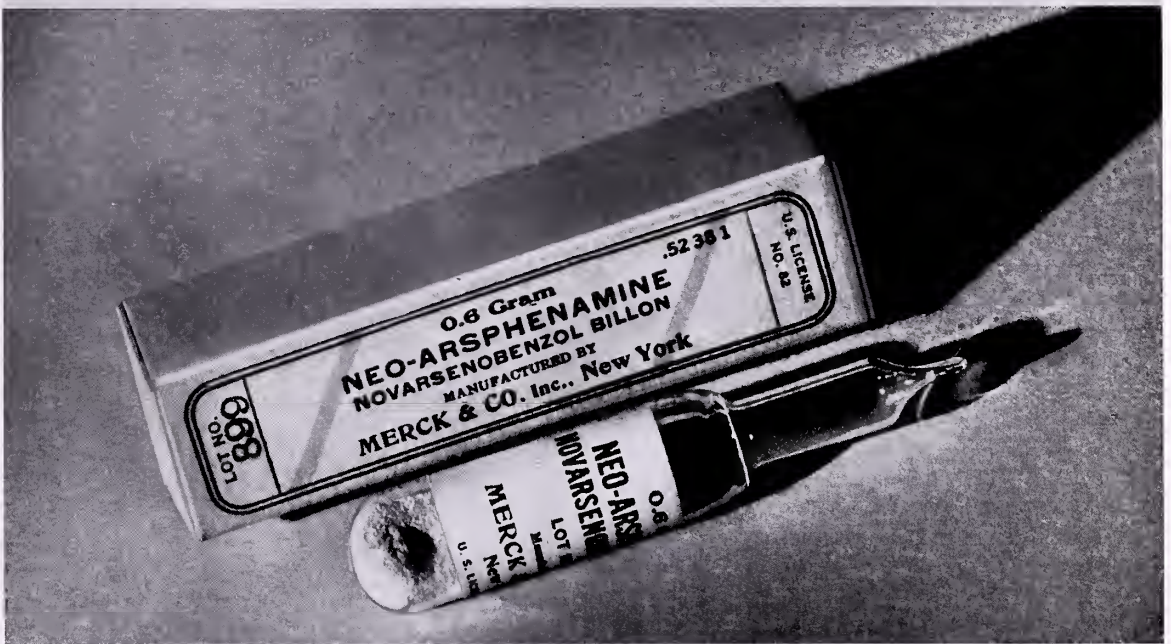
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## LOW BACK PAIN\*

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Pain in the lower part of the back is one of the most common of complaints. It rivals headache and stomach ache in frequency as a symptom in medical histories; and it offers, as do these others, unlimited possibilities of interpretation. Arising from a multitude of causes and varying in the disability which it produces from slight discomfort to complete invalidism, it merits careful study. Much progress has been made in the last quarter-century both in the differentiation of the various kinds of backache and their underlying causes, and in more effective prevention and treatment. While these advances are most gratifying, much still remains unknown. Most of the studies on backache have been either statistical surveys or critical discussions of one or at most, a few causes of this symptom usually from the limited point of view of one medical specialty. There is great need at the present time for a careful analysis of the accumulated data with an attempt at a comprehensive discussion of the causes of pain in this region, and their treatment.

While pain may be present in any portion of the back, when backache is mentioned, we usually think of it as pain in the lower part of the back since this is its most common location. A consideration of the anatomy and mechanics of the spine will show readily why this should be so. Apart from the lower cervical spine the lumbar spine has more visceral attachments either directly or indirectly than any other portion of the vertebral column. Many organs, which in the light of recent neurological investigation<sup>1</sup> can no longer be regarded as silent, have their nerve supply largely from this spinal segment. Again, the freely movable lumbar spine is attached to the relatively fixed pelvis, with the spine usually balanced on an inclined plane at the lumbosacral joint. Both the torso above the pelvis, and the

legs below are attached to the low back and pelvis by powerful groups of muscles. These anatomical arrangements make the low back peculiarly liable to suffer injury or to serve as the locus of referred pain.

Age and sex does not provide any relative exemption from back pain although it is more commonly found in middle age and in the later years. The great capacity of youth for adjustment and the surmounting of disabilities, with probably greater resiliency of muscular and ligamentous tissues may be the reason for this. Both sexes, according to the most recent surveys, seem to be attacked with about equal frequency. Our concept of backache as chiefly a feminine disability,<sup>2</sup> gained largely from romantic Victorian literature, must be modified in the light of medical knowledge coming with the rapid industrial expansion of the present century. Except in acute disease either systemic or with involvement of the abdominal or pelvic viscera, low-back pain is not often found in children, and when it occurs it is usually of short duration. Actual disease of the lower spine, e.g. tuberculosis, formerly common in children, is now fortunately becoming more rare.<sup>3</sup>

### *Etiology*

If we should attempt to enumerate all of the causes of pain in the low back we could indict at one time or another every disease mentioned in textbooks of medicine.<sup>4</sup> An array of names of diseases would add only to confusion, so a discussion will be given only of the more common causes, arranged in groups as far as this is possible. We can readily divide pain in the low back into two types, according to the origin of the pain; referred pain, that is, pain arising from disturbances in other structures and giving rise to sensations in the lower back; and local pain, arising in the spine or its supporting structures. In the first group (referred pain) the cause will usually be an infection, a neoplasm or a functional disturbance elsewhere in the body, usually in the abdominal or pelvic organs. In the second group (local pain) the cause will most commonly be a strain of ligaments, muscles, or fascia, in the lower back, or a disease of the low lumbar spine or sacrum with their articulations.

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A closer study of referred, low-back pain will permit of further subdivision about as follows: general infections, visceral lesions, and neurological disturbances. General infections when accompanied by prostration and fever, practically always lead to pain in the lower part of the back. Such pain is usually only vaguely localized and passes away with recovery from the infection.<sup>5</sup> Even the common cold, if sufficiently severe, is apt to bring this symptom. The explanation usually given for such pain is weakness producing a mild strain of the muscles and ligaments in the back. In certain instances, particularly typhoid and influenza, an actual invasion of the muscle by the disease may occur.<sup>6</sup> This is also seen in such parasitic infections as trichinosis.

That diseases in the abdominal or pelvic viscera can lead to the symptoms of pain in the low back is conceded from a formidable mass of clinical and experimental evidence. It is believed that any organ supplied by nerves arising from the lumbar and sacral segments of the spinal cord may give rise to pain in the lower part of the back. As an explanation of referred pain from visceral lesions, we can do no better than to quote from Head:<sup>7</sup> "A painful stimulus from an organ is conducted to that segment of the cord from which its sensory fibers are given off. There it comes in close connection with the fibers for painful sensation from the surface of the body which also arise from that segment. But the sensory and localizing power of the surface of the body is enormously in excess of that of the viscera and thus by what might be called a psychical error in judgment, the diffusion area is accepted by consciousness, and the pain is referred to the surface of the body instead of the viscera actually affected." Whether afferent sympathetic nerve fibers from viscera can play a rôle in referring pain to the surface of the body is still an unsettled question, with the evidence at present suggesting that they do.<sup>8</sup>

Many organs are known from clinical observation to be factors in producing pain referred to the low back. The usual ones are the urinary tract, the lower bowel, and the male and female genital organs. The upper abdominal viscera receive their nerve supply chiefly from the lower thoracic nerve roots so that pain from these organs is rarely if ever referred to the low back. Pain from intestinal irritation or obstruction is usually fairly widespread and is paroxysmal, frequently called "colic." Pain in the low back from gastro-intestinal lesions is usually the result of a localized non-obstructive lesion such

as a neoplasm or an ulcer, usually in the large bowel. Peritonitis, while it can cause pain in the low back, practically never does this alone unless there has been a recent perforation along the lower, posterior abdominal wall. A retrocecal appendix has been known to give pain in the lumbar region. But in all of these, pain is rarely localized to the back alone but tends to be diffuse and projected more commonly to the anterior abdominal wall. Diseases of the kidney, ureters and bladder give rise to pain in the low back somewhat more frequently.<sup>9</sup>

Disease, or malposition of the uterus, and disease in other portions of the female genital tract may produce pain in the low back. Graves,<sup>10</sup> in a study of five hundred gynecological cases, concluded that retroversion and genital relaxation were the chief causes of backache in gynecological lesions. The pain was commonly referred to the sacral region. In this he was confirmed by the studies of Lynch,<sup>11</sup> and of Bullard,<sup>12</sup> who mentioned also as less frequent causes of backache, uterine myomata, tubal and ovarian disease, and malignant neoplasms of the female genital tract. Cervical carcinoma, particularly in the later stages, produces severe pain in the low back.

In the male genital tract the prostate and seminal vesicles have been mentioned most frequently as a cause of low back pain, although other portions of the genital tract may occasionally cause it. Young and Gerachty,<sup>13</sup> in an analysis of 385 cases of chronic prostatitis found pain referred frequently along the sciatic nerve or over the sacro-iliac articulations. On injection of the seminal vesicles in certain individuals, pain was referred to the sacro-iliac joints. Carcinoma of the prostate without metastases also at times produces pain in the low back. In these, as well as in other diseases with involvement of the lumbar lymph nodes or retroperitoneal structures, pain may arise from the close relationship to spinal structures.<sup>14</sup>

Before we leave entirely the discussion of pain in the back as the result of visceral lesions, we should consider two other related topics. The first of these is the relation of so-called foci of infection<sup>15</sup> to low-back pain. It is widely believed and supported by a rather meager amount of experimental data that toxins and bacteria can lodge in muscles, fascia, and articulations, and can initiate an inflammatory process there. Such toxins or bacteria can supposedly come from an area of infection elsewhere in the body, or from the gastro-intestinal tract. Os-good<sup>16</sup> has shown that pain in the low back and hip



may be related to intestinal stasis and may disappear when normal function is regained in the large bowel. Others have observed a transient arthritis or "fasciitis"<sup>17</sup> in the low back which was apparently cured by the removal of infection in the teeth, tonsils, or genital tract. While it is entirely possible for such metastatic infection, or intoxication, to occur, it is unlikely that it does so without a previous injury, or inflammation in the tissues which makes them less able to cope with blood-borne toxins or bacteria. In the experience of the writer, and in several large orthopaedic clinics, it is looked upon as a possible, but rare cause of low back pain.

The second cause of low-back pain related to visceral disturbances is visceroptosis. Even before Glenard's<sup>18</sup> classical studies, fatigue and pain in the back were known to be a not uncommon accompaniment of downward displacement of the viscera. It is doubtful whether the pull of displaced viscera themselves cause the backache. With more comprehensive review of the problem, particularly in the light of the more recent studies of Keith,<sup>19</sup> Viator,<sup>20</sup> Goldthwait<sup>21</sup> and Coffey,<sup>22</sup> it is fairly well established that the accompanying muscular weakness and faulty alignment of the whole body, which accompanies the visceroptosis, disturb the support of the spine and produce strain on the back directly. These may also be factors in the backaches associated with displacement of the uterus.

Before we leave the field of symptomatic backaches, we should consider one more cause, if cause it can be called,—the psychoneurotic backache.<sup>23</sup> Almost every medical practitioner of wide experience has seen this type, a pathetic individual born with a nervous mechanism inadequate to cope with the everyday problems of life. In these individuals backache is often only one of many symptoms occurring without adequate clinical foundation. How much of the symptom complex is due to an inadequately functioning neurological equipment, and how much is due to accruing strain from the usually accompanying visceroptosis, inadequate muscular development, and faulty posture, only comprehensive study and therapy can determine. The lower spine represents the line of convergence of all of the sensory nerve fibers from the lower part of the torso and the lower extremities, as well as the lower abdominal and pelvic viscera, and it is common in these individuals to refer pain here.

Certain diseases of the central nervous system have at times been responsible for low-back pain.<sup>24</sup>

The pains of tabes and of syringomyelia have, in a number of instances, been referred to the low back, as have also radiculitis and the various nerve-root lesions. Herpes zoster can produce very severe pain in the back, as in any other location. Meningitis,<sup>25</sup> poliomyelitis, and tetanus at times cause this symptom. Tumors of the lower spinal cord, the cauda equina, or the lumbar and sacral nerve roots may give rise to constant and excruciating pain in the low back.<sup>26</sup> Any infection or intoxication of the nervous system in this region can lead to pain. Among the functional nervous disturbances, hysteria can counterfeit disease in the low back.

Infections of the lower spinal column have given rise to pain as they advanced and encroached upon nerve tissue, particularly the posterior nerve roots. Of these infections, chronic arthritis is probably most common. Rheumatoid arthritis of the spine, the Strumpell-Marie type, frequently is often first manifest by pain and stiffness in the lower part of the spine, with its first roentgenological evidence frequently in the sacro-iliac joints.<sup>27</sup> It may cause pain by impingement of nerves in the swelling about the foramina or by actual extension of the inflammatory process to the nerves. In osteo-arthritis pain may come as Gunther<sup>28</sup> has shown, from impingement of nerves by the chondro-osseous proliferation about the vertebral borders, but pain may also arise in this disease from strain as the result of the restricted motion in the spine.

Tuberculosis of the spine,<sup>29</sup> most common, according to statistics, in the dorsal region of the spine, produces pain in the back, either from nerve impingement or from strain after vertebral collapse. Abscess formation, e.g., psoas abscess, rarely causes pain. Osteomyelitis of the vertebrae, a relatively uncommon disease, gives rise to pain when the inflammatory swelling or abscess formation presses upon the nerve roots.<sup>30</sup> Typhoid osteomyelitis or periostitis,<sup>31</sup> formerly not uncommon but now rare, has been mentioned as a cause of low-back pain. Tumors of the spine usually cause pain when their extension leads to pressure upon nerves, or when weakened vertebrae collapse. These are more commonly metastatic tumors.<sup>32</sup> Of such, carcinoma of the breast, uterine cervix, and prostate, hold first rank in statistical studies.<sup>33</sup>

Injuries to the low back, i.e., its ligaments, muscles, joints, and bones, are the most common of all of the causes of pain in this region.<sup>34</sup> Of such injuries, strain is the most frequent. Strain results

from a distraction of ligamentous, or less commonly, muscular fibers. Strains of the back may result from an infinite number of mechanical causes. They may come on acutely from a severe blow upon the low back or pelvis, or from sudden muscular exertion. They may come on insidiously, with gradually increasing lameness. Any part of the back may be affected, depending upon what part is mechanically most weak, and upon the direction and intensiveness of the acting force.

In the low back there are a number of things which tend to make the back less strong. An extremely common one is faulty posture.<sup>35</sup> This does not always lead to back strain quickly since in certain individuals there is greater ability to compensate for malalignment of the spine. Faulty posture plays an increasingly important role in the middle and later decades of life, although it is frequently a predisposing cause in young people. In children, while backache from postural defects may be found, there seems to be sufficient resiliency of ligaments and great capacities of adaptation, and it is usually only as these begin to be lost that faulty posture leads to backache at times associated with relatively fixed postural deformities.

In faulty posture the normal antero-posterior curves of the spine are frequently greatly increased, particularly in the slender anatomic type.<sup>36</sup> The spine is consequently used close to the extreme point of its possible movement. In the low back this is usually extension with the lumbar spine in marked lordosis. The pelvis is commonly tipped forward and the long axis of the sacrum approaches the horizontal. In such carriage of the body there is very little additional movement possible in the direction in which the spine is tilted. In other words, there is "no factor of safety" for motion. Consequently, a sudden force acting upon the spine may bring the spinal joints to the limit of their motion, and strain their supporting ligaments. The strain does not necessarily have to result from a sudden force; long continued use in the position of faulty alignment may lead to a slowly developing, chronic strain.<sup>37</sup>

Scoliosis, whether of the functional or organic type, predisposes to strain in the low back. Except in the more severe degrees of this deformity, there are usually no symptoms in children, and it is only in later life that pain occurs from muscular fatigue, strain, or pressure upon nerve roots.<sup>38</sup> The deformities of the spine in osteochondritis and epiphysitis may also lead to strain of the low back.<sup>39</sup>

In the low back there are a number of conditions which tend to make the back less strong. General muscular weakness is a not uncommon one particularly after long illness. Increasing obesity, sedentary occupation, and insufficient exercise may also lead to impaired muscular tonus and weakness. More lasting in their potentialities to produce strain are the various congenital defects of the low back.<sup>40</sup> Many of these lessen the movement or the mechanical stability of the spinal column and in these ways make strain more likely.

Probably the commonest of these is a difference in the shape and directional slant of the articular facets at the lumbo-sacral articulation.<sup>41</sup> The vertebral articular facets in the lumbar region are usually crescentic in outline and moderately long. They may vary from this and be flat and short on one or both sides. It is generally conceded that the flat type of articular facet is less stable than the crescentic type. This is a predisposing cause to strain of the less secure side of the spine. Changes in the spinal articular facets are sometimes associated with a spina bifida occulta.<sup>42</sup> A numerical variation in the number of vertebrae is also not particularly uncommon. An increase in the number of lumbar vertebrae tends to make strain a little easier while a decrease tends to greater stability of the spine.

Fairly common among anatomical variations are changes in the size and shape of the transverse processes of the fifth lumbar vertebra. Sometimes the fifth lumbar vertebra takes on the characteristics of a sacral vertebra or the first sacral vertebra may be somewhat like a lumbar vertebra. More often there is a wide, lateral projection of the transverse process of the fifth lumbar vertebra on one or both sides. The wide projection usually leads to great stability of the spine on that side so that strain is more probable on the side without this projection.<sup>43</sup> In certain cases an actual joint may be formed with the ilium. At such places an arthritis or bursitis from the development of an adventitious bursa may lead to pain in the low back.

More important, although relatively uncommon, is a lack of osseous fusion of the laminae to the body of the vertebra in the lumbar spine. In such cases a slipping forward of the vertebral body upon the one beneath may occur. This condition, called spondylolisthesis, usually produces a relatively constant pain in the low back, although symptomless cases of this condition have been recorded.<sup>44</sup>



There has been much discussion of the mechanics of forces, acting upon the low back and its articulations to produce a strain. Ingenious diagrams have been made to show the vectors of force upon which ligamentous tear, or, in rare instances, actual subluxation of the joint depends.<sup>45</sup> These studies are of little, or doubtful, clinical value since the direction and extent of the force, as well as the resistance and adaptation on the part of the back are constantly varying factors. An antero-posterior force producing a shearing stress is supposed to be the most common type in both sacro-iliac and lumbo-sacral strains. Fascial and muscular injuries are said to be more common after forceful, twisting motions of the body.

The pathological result of a strain is a distraction of the fibers of ligaments, fascia, or muscle. There is no agreement on what ligaments are involved, and this problem must be left to conjecture since there are few records of anatomical verification of these lesions. It is generally believed, however, that the ilio-lumbar ligaments are commonly involved in strains about the lumbo-sacral joint<sup>46</sup> and that the posterior sacro-iliac ligament with its various digitations is most frequently involved in sacro-iliac, or pelvic joint strains.<sup>47</sup> It is unlikely that only one ligament or only one joint is involved in the severer injuries; the close interrelationship of the various ligaments tending to spread the injury fairly widely.

When strain alone occurs there is slight hemorrhage since ligaments are almost avascular. More extensive hemorrhage sometimes with subcutaneous ecchymoses is found where the bony attachments of ligaments are evulsed. The strain, whatever its severity, is followed by an attempt at repair: edema, the formation of scar tissue, and healing which frequently leaves the ligaments weaker than before.<sup>48</sup> If there has not been adequate support in the healing process, a lengthening of ligaments with subsequent relaxation of the joints may result. This makes for ease in producing later strains. Frequent strain or more or less constant strain in a chronically relaxed joint will lead to contusion of the synovial membrane and later, arthritis, at times with bony proliferation about the margins of such chronically-strained joints.<sup>49</sup>

Radiation of pain about the lower abdomen or into the lower extremity is not uncommon in the so-called lumbo-sacral and sacro-iliac strains. There are a number of theories as to the causation of such

pain, particularly along the sciatic nerve, called sciatica. Nerve impingement at the neural foramina from edema or inflammatory exudate, or stretching of the nerve in the original strain, have been mentioned as causes.<sup>50</sup> Stretching of the nerve by the resultant muscle spasm of the piriformis muscle has been described by Freiberg.<sup>51</sup> Referred pain to the cutaneous distribution from the nerves in the ligaments or articular capsule have been mentioned.<sup>52</sup> It is probable that various of these possible causes play a part in such nerve involvement which often proves to be one of the most persistent and troublesome features in certain injuries of the low back.

Before we leave the discussion of strains, we should consider a special type associated with pregnancy. In pregnancy, and to a less extent during catamenia, there is a relaxation of the pelvic joints.<sup>53</sup> As pregnancy advances this may become marked and cause severe pain in the low back. At times fairly wide separation of the symphysis pubis is observed before or after parturition.<sup>54</sup> Actual upward displacement of the ilium upon the sacrum has been reported. With proper care this relaxation disappears some months post-partum.

Another cause of low-back pain from trauma is fracture either of a vertebra or of the pelvis. Pain may result in the low back from the fracture itself or from the strain and contusion which they produce. Vertebral fractures in the low back are not as common as in the cervical region, or about the dorso-lumbar junction.<sup>55</sup> Fractures of the pelvis, especially if disalignment is produced in the sacro-iliac articulation, are liable to produce pain in the low back. Fractures of the transverse processes of the lumbar spine are relatively common injuries and produce fairly severe local pain. The same can be said for the somewhat rarer fractures of the laminae and spinous processes.

Dislocations of vertebrae or of the pelvic bones which may occur with or without fracture lead to pain in the region, and at times, paralyses. A certain amount of displacement occurs with traumatic or degenerative rupture of the intervertebral disc with extrusion of the nucleus pulposus usually either posteriorly or into the vertebral body. The pathology of this condition has been carefully studied by Schmorl<sup>56</sup> and others. In patients with this lesion in the lumbar spine, observed by the writer, pain in the back, as well as pain radiating down the thigh, was found.



### *Diagnosis*

As in the discussion of the etiology, an extensive list of causes might have been mentioned, so, in diagnosis, an infinite number of tests could be described, most of them helpful to a certain extent, but unnecessary since they duplicate mechanically many simpler maneuvers. The differentiation of the kinds of backache and the finding of the cause in the individual case is often baffling and can be solved only by long and patient study. The first problem is to determine whether the pain arises from the spine and its supporting structures, or whether it is a referred pain. There are a few instances of so-called neurosis, or hysteria, but this is a diagnosis that can be made only by exclusion.

The first requisite is a careful history. This alone will often give sufficient data to exclude many diseases and causes of low-back pain. In seeking for the story of the origin and development of the pain, each physician must follow his own method, but certain facts should be elicited.<sup>57</sup> The following are probably of first importance: the location of the pain, its severity, and whether it is constant or intermittent, the duration and manner of onset of the pain, and whether any of its characteristics have changed. In symptomatic backaches and in slowly developing strains only an approximate date of onset may be given. If symptoms are intermittent, it is of value to determine their duration and the intervals of time that the patient is free from pain.

The patient will usually have some opinion of the cause of the pain. A knowledge of the way in which the pain first occurred with some idea of the acting causes will permit an estimate of its nature and severity. In certain cases, especially where litigation is pending, there is a tendency to exaggerate. At other times symptoms will seem to be more intense from fear and anticipation of a serious disease, especially fear of arthritis or malignancy. Past treatment or advice which at times, unfortunately, has made the condition worse, may also color the patient's outlook.<sup>58</sup>

The past history may offer important leads. In childhood any disease of severity, or one associated with temporary loss of function must be carefully considered. Muscular weakness or deformity may arise from disease in childhood which may lead to disabilities in the back, as may also severe illnesses in adult life. Previous operations, abdominal, or pelvic, may have left in their wake adhesions, recurrence of the original difficulty, or weakness of the

abdominal musculature. Removal of a tumor, particularly of the breast, uterus, or prostate, should make one at least keep in mind the possibility of spinal metastases. Previous injuries, especially to the spine and pelvis must be appraised. The susceptibility to infections, the general hygiene, gain or loss in weight, the function of the alimentary tract and the menstrual history are important. Backache associated with previous pregnancies may suggest continued relaxation of the pelvic joints. One should know the type and strenuousness of the occupation, particularly whether it is sedentary or requires much walking or lifting. Finally, the adaptability and mental adjustment of the individual should be learned. Nothing is beneath the attention of the examiner if there is a reasonable possibility that it may aid in arriving at an explanation of the low-back pain.

The family history is of somewhat less importance but, nevertheless, too important to be neglected. The familial history of rheumatism or of tuberculosis may be helpful. A certain type of body build may have been inherited, particularly the very slender type which increases the potentiality to strains. Familial susceptibility to certain chronic diseases may bring opportunities for pain in the low back in their evolution.

In the differential diagnosis of low-back pain, the examiner must remember that he is dealing with a human being with a number of varied parts to his anatomy, all of which should be considered before they are excluded from possible etiological significance. The physician should be a patient and sympathetic questioner, seeking only the truth, and a careful and unprejudiced examiner seeking deviations from the normal in structure and function. The examination will be performed somewhat differently by every physician. It is important only that it be thorough, systematic, and that nothing be missed.

The usual physical examination should first be carried out. This with the history should rule out most of the extra-spinal causes of low-back pain. We shall not go into detail in regard to the general examination, but such points as seem to be of special importance in the differential diagnoses of low-back pain will be mentioned.

An elevated temperature will suggest a general infection, the nature of which can be determined in the evolution of the characteristic physical signs. The skin and subcutaneous tissue may give evi-

dence of a recent gain or loss in weight. Skin lesions as symptoms of underlying disease are sometimes helpful but except in diseases like herpes zoster, they rarely cause low-back pain. A generalized adenopathy may suggest a chronic infection or new growth. An examination should be made for infection, particularly in teeth, tonsils, and sinuses. Infection of the lung both bacillary and mycotic, which metastasize to bone, and those diseases which may produce thoracic deformity must be kept in mind.

In the abdomen the findings of most diagnostic importance for low-back pain are: muscular spasm observed with inflammatory lesions in the abdominal cavity and with acute injuries of the spine or pelvis, lax abdominal muscles commonly seen with faulty posture and visceroptosis, unusual abdominal masses which may prove to be displaced or functionally disturbed viscera, or neoplasms, diastasis of muscles, and hernia. Palpation of the large bowel should be made with such conditions as stasis, dilation, and spasticity in mind. Rectal examination should be carried out particularly to determine the presence of hemorrhoids and prostatic disease, and vaginal examination especially for uterine displacements. The extremities may show swelling, pain, and limitation of motion often evidence of a rheumatoid arthritis. Osseous projections about joints and so-called Heberdon's nodes are usually evidence of an osteoarthritis.<sup>59</sup>

The general physical examination should be followed by neurological and orthopaedic investigation. The neurological examination should be sufficiently thorough to rule out the commoner neurological causes of low back pain, particularly inflammations of the meninges and spinal nerve roots. New growths in the spinal cord are usually diagnosed only after prolonged study. The most severe spinal pains are found where there is pressure upon the nerve roots. Most helpful in the differentiation of neurological diseases are alterations in the normal reflexes, the presence of pathological reflexes, spasticity, paralysis, or atrophy of muscles, and sensory or trophic changes. Organic neurological conditions with low back pain as their only symptom are uncommon. Low-back pain in neuroses and mental disturbances is usually associated with long-continued disability.

For the orthopaedic examination, the gait and poise of the individual should be observed before the clothing is removed. Observe the general mus-

culature, whether flabby or of good tone. The spine is a flexible rod held in the upright position chiefly by muscles. If the muscles are flabby, slumping of the body permitting strain to ligaments is prone to occur. It is well to observe the extremities, particularly for deformity, before proceeding to the back. In the lower extremities strain at the foot or knee may be transmitted to the back, consequently weight bearing should be examined carefully,<sup>60</sup> as well as muscular weaknesses and circulatory deficiencies which may gradually lead to strain.

The appraisal of the general anatomic type<sup>61</sup> of the patient is helpful in differentiating spinal lesions. The slender type with more lax ligaments and greater joint motion more often suffers from strains in the low back and visceroptosis with functional visceral disturbances. The heavy anatomic type with short ligaments and decreased joint motion resists strain better but more frequently develops osteo-arthritis about the spinal joints. Observe how the spine is held from a mechanical point of view. Are the various sections of the body badly poised over the center of gravity? Is any part of the spine habitually held at the extreme of possible flexion or extension? These are evidences of faulty posture, one of the commonest causes of strain of the back.<sup>62</sup>

A lateral deviation of the spinal column may be present. This may be a protective phenomenon attempting to relieve pressure or tension upon injured joints or ligaments or it may be an habitual scoliosis. The differentiation can be made from the history, examination of spinal movement, and roentgenological study. In injuries involving the low back or pelvic joints, the deviation of the spinal column is more commonly away from the injured side.<sup>63</sup> Disease or injuries of the low back are usually accompanied by muscle spasm, either unilateral or bilateral, particularly in the erector spinae group of muscles, which may be observed as ridge-like prominences on either side of the spine.

The movement of the spine should be observed in forward bending, side bending and extension.<sup>64</sup> It is important to know where bending begins. In faulty posture it will usually begin with an increased forward slump of the cervical and upper dorsal spine; in the milder spinal injuries the injured portion of the spine will usually move last. Keep in mind the normal range of motion for the various spinal segments, realizing that the stocky



anatomic type normally bends less than the slender type; and look for any local restriction in motion. Most persons are uncomfortable in bending toward the lesion in lumbo-sacral and sacro-iliac strains, and in bending away from the lesion in muscular or fascial injuries. Similar examination of the spine should be made in the sitting position. This is occasionally helpful in differentiating between lesions of the low lumbar spine and the lumbo-sacral joints, and sacro-iliac strains. Movement in the low back may be less restricted while sitting, in sacro-iliac strains.<sup>65</sup> Sitting, however, relieves most of the lumbar lordosis and sometimes permits freer motion in lumbo-sacral injuries. Twisting motions are of value in more exact location of lesions in the lumbar spine, tension usually coming directly upon the injured part.

One should test for areas of tenderness over and about the spinal column. This is best carried out with the patient standing since in this position tenderness is often more intense from the muscular pull to keep the torso erect. It is well to palpate the spinous processes, the transverse processes, the neck and angle of the lower ribs, and the lumbo-sacral and sacro-iliac joints with their ligamentous supports. In muscular or fascial strains, tenderness is most commonly found along the posterior iliac crest or about the posterior superior iliac spine. The finding of tenderness over any of the chief ligamentous structures supporting the low spinal or pelvic joints is one of the most helpful of diagnostic points and usually indicates strain in that region. In lesions of the sacro-iliac joint, tenderness is more commonly found below the posterior superior iliac spines over the sacrum medial to the sacro-iliac joints or at the sacro-sciatic notch. In lumbo-sacral strains tenderness is more common over the spinous process of the fifth lumbar vertebra or lateral to it.<sup>66</sup> Tenderness over the lower ribs near their spinal attachment is often evidence of intercostal neuralgia.<sup>67</sup> In contusions to the low back there may be local tenderness at times associated with swelling and ecchymosis. In infections in the low back, local heat or, rarely, an abscess may be palpated. In thin individuals abnormalities in bony contour can at times be felt.

Examination of the spine should also be made in dorsal and ventral recumbency, being certain that the position is as symmetrical as can be assumed with comfort. In certain individuals the "knee-chest position" aids in differentiating be-

tween lesions in the abdominal wall and intra-abdominal disease, and in back disabilities as well.<sup>68</sup> Where there is a lateral deviation of the spine with marked muscular spasm, there may be a lateral tilt of the pelvis in the lying position, with an apparent difference in the length of the legs, seen more commonly in sacro-iliac strain. However, a short leg may be found without any lateral tilt of the pelvis, where it has been present before symptoms arose, but probably acted, like any other deformity of the lower extremity, as a predisposing factor in strains of the low back. Inability to fully extend the knee is seen with many acute lesions of the low back as well as inflammatory lesions in the lower abdomen. One must be on guard against fixed deformity at hip or knee. Measurements of the circumference of the thighs and calves should be taken, since in long-standing disability in the low back, atrophy of the muscles of the thigh, and to a lesser extent those of the calf is usually found on the side of the lesion.<sup>69</sup>

Much can be learned by testing movement at the hip joint. There is usually pain and limitation of any motion in rheumatoid arthritis of the hip joint which usually involves the spine as well, and some limitation of abduction and internal rotation without pain in osteoarthritis.<sup>70</sup> Flexion of the thigh upon the abdomen, with the knee bent, will commonly be quite painful in low lumbar and lumbo-sacral disturbances, but less painful or painless in sacro-iliac inflammation since here the pelvis moves practically in toto upon the spine. Flexion of the thigh with the knee straight, Laségne's sign, commonly called the straight leg-raising test,<sup>71</sup> causes pain, in sacro-iliac lesions, either referred to the sacro-iliac region or radiating down the posterior aspect of the thigh since with the knee straight the tension of the hamstring tendons upon the ischial tuberosity causes more motion to take place at the sacro-iliac joint. Pain occurs usually in sacro-iliac disease after the straight leg has been raised on the affected side through a very small arc. A much greater arc of motion is possible as a rule on the unaffected side before pain is felt. This straight-leg raising test of which there are many modifications, is of somewhat limited value because of the close interrelationship of low spinal and pelvic ligaments and the frequency in which injuries involve more than one articulation.

Great emphasis has been placed upon the cutaneous radiation of pain by certain students of low-



back injuries.<sup>72</sup> What causes the radiation of pain is still an unsettled problem. A like cutaneous distribution of pain referred from the low back has been given for lumbo-sacral and sacro-iliac lesions apparently after equally competent clinical and anatomical study.<sup>73</sup> Until these uncertainties are removed we cannot use with assurance the radiation of pain to various areas of the lower extremity in the differential diagnosis of low-back injuries.

Roentgenological examination of the spine is most helpful and should be omitted in no case of long persisting low-back pain.<sup>74</sup> Antero-posterior and lateral views of the lower dorsal spine, lumbar spine and pelvis are usually adequate. For special study of displacements or the degree of arthritic changes, stereoscopic roentgenograms may be helpful. If information regarding the spinous processes is desired, lateral views may be taken with the hips acutely flexed upon the abdomen. The vertebral articular facets at the lumbo-sacral junction are best shown with the back rotated fifteen to thirty degrees from the true lateral view.<sup>75</sup>

The evidence obtained from roentgenograms is first of all anatomical. Fractures, osseous displacement, congenital abnormalities or acquired deformities may be shown, as well as a heavy or slender anatomic type of spine. Secondly, except in extremely early cases, roentgenograms will give information of pathological changes. Rheumatoid arthritis frequently begins in the lower spine, particularly the sacro-iliac joints, with decalcification of bone, clouding, and later fusion of the spinal joints, and calcification of the spinal ligaments.<sup>76</sup> Hypertrophic arthritis shows osseous proliferation about articular margins and the edges of the vertebral bodies with no ankylosis and little decalcification of the vertebral bodies.<sup>77</sup> Malignancy usually involves only a small portion of the spine and appears as an area or areas of rarefaction often described as "moth-eaten"<sup>78</sup> or, more rarely, as areas of increased bone density. Infections, e.g. tuberculosis, osteomyelitis, or the mycotic infections will produce areas of destruction in vertebrae, sometimes with surrounding areas of increased osseous density, and less commonly may show abscess formation.<sup>79</sup> Roentgenological studies, particularly of the gastro-intestinal and urinary tract, are also, at times, important confirmatory aids in diagnosis.

Laboratory aids in addition to roentgenological examination, are sometimes helpful. They should

not be used indiscriminately, for they do not replace careful physical examination and good judgment. Certain leads will usually be given in the history and examination of the patient so that laboratory tests may be used to answer uncertainties in the affirmative or the negative. If an infection is suspected the usual examination of the blood may aid in appraising the reaction of the individual to the infection, or in determining whether an anemia is present. The sedimentation rate of the red blood cells may help in judging the activity of diseases like chronic arthritis or tuberculosis. The tuberculin test and the Wasserman test, while establishing past infection if positive, do not connect such infection, without further data, to the pain in the low back. Likewise, urethral, cervical, or prostatic smears, and examination of urine and stool can give only confirmatory findings, which, with the history and physical examination, may link the genito-urinary or gastro-intestinal tract etiologically to the low-back pain. Examination of the spinal fluid with pressure studies and the injection of roentgenologically opaque material is only performed in the presence of neurological signs indicating such procedure.

In the present rapid advance in medical knowledge, it is impossible for one physician to diagnose accurately all the conditions which may produce low-back pain. But the well-trained physician should be competent to recognize deviations from the normal in structure and function which may indicate further study with consultation with the appropriate specialists. More than one cause of low-back pain may be present. The physicians' task is to arrive at the most comprehensive diagnosis possible, not only that the immediate disturbance in the low back may be relieved but also that future difficulties in this region may be prevented.

A summation of all diagnostic criteria is not possible. But a brief review of the chief differentiations may be helpful. Statistics show that most cases of low-back pain are due primarily to trauma, to faulty posture and to fatigue. There is fairly general agreement, in which the writer's experience concurs, that pain referred to the low back is less common than local pain. It may be said unequivocally that muscle spasm, localized tenderness, and limitation of motion in the spinal region indicate a lesion in the spine, or its contiguous structures, but this does not exclude extra-spinal lesions as contributory or secondary causes. Acute

traumatic lesions, sometimes self-evident, can be diagnosed usually with roentgenological aid. If pain only is found without any local, protective phenomena in the low back, the source of pain is elsewhere,—the source of the referred pain being usually suggested by the history of symptoms and the physical findings.

### *Treatment*

What has not been tried in treatment for the relief of low-back pain? The cultivation of this fruitful field by nostrum venders and irregular practitioners attests both to the difficulties commonly encountered in relieving this troublesome symptom and to the child-like credulity of human beings. In a review of the previous treatment of one hundred patients suffering from low-back pain, the writer obtained this summary:

<i>Treatment</i>	<i>No. of Patients</i>
Medicines, including endocrine products and dietary regulation	40
Spinal support	13
Rest in bed	12
Pelvic operations	7
No treatment	6
Removal of foci of infection	5
Osteopathic treatment	5
Chiropractic treatment	4
Rest in bed and spinal support	2
Manipulation by physician	2
Relief of foot strain	2
Arthrodesis of sacro-iliac joints	1
Exercises	1

The statement of Sir James MacKenzie many years ago that one must know all the causes of a disease before satisfactory treatment can be given, is an axiom for all scientific therapeutics. An accurate diagnosis must first be made if treatment is to be effective and comprehensive. One can even go farther than this. A study carried out by the National Safety Council has shown that, at least in industry, we should take thought for the prevention of many disabilities of the low back by adequate training and supervision of workmen, and of their working environment.<sup>80</sup> Certain gynecologists<sup>81</sup> have suggested that many of the backaches in women might be avoided by proper training and instruction of girls and young women; and the health surveys of such women's colleges as Smith and Wellesley suggest that this is probably true.

The attempts directed chiefly to the prevention of low-back strain in industry have been the correction of the seats of workmen, or a proper level of

work table so that excessive fatigue and faulty attitudes might not lead to strain of the low back, and also the examination of workmen at times with roentgenograms of the low back particularly in work requiring heavy lifting;—workmen for the more strenuous tasks being accepted only when posture and musculature were good, and the roentgenograms showed no disease or congenital abnormality which might predispose to spinal injury. Moreover, the National Safety Council has issued posters and pamphlets in regard to posture and the best ways of lifting and carrying heavy objects. Certain of the large insurance companies have also been interested in such projects. In regard to the backaches of women, the departments of hygiene of a few of the women's colleges and certain industries employing many women have attempted to improve the well-being of the women by health examinations, rest periods, postural exercises, and the correction of gynecological lesions.

In the actual treatment of low-back pain after the cause or causes have been found, each type of case will require its own peculiar therapy. There are a number of backaches accompanying self-limited diseases, for example, certain fevers in which the low-back pain will be found to disappear after the rest in bed which is usually prescribed in the treatment of these diseases. Some patients with low-back pain obviously the result of referred pain from lesions and disturbances of the abdominal and pelvic viscera should be treated for the visceral disturbance. If this is the only cause of the symptoms, the back pain will disappear after the visceral disturbance has been cured. It is not within our scope to discuss at length the treatment indicated in each of these conditions. That is the province of the internist, the urologist, and the gynecologist after the diagnosis has been made. Certain cases will require neurological or neurosurgical aid, and a few, psychiatric assistance. It may be found that several causative factors are active in one case. Here it would seem to be most logical, other things being equal, to treat the more serious lesion first, and afterwards to proceed to the other contributing factors. Experience and good clinical judgment are often necessary in order to know where and how to begin treatment most effectively.

It is evident from the statements already made that no one specialty is competent to care for all cases of low-back pain. Most of them must, of necessity, remain in the hands of the general prac-



itioner.<sup>82</sup> It is essential that he be competent to arrive at an approximate diagnosis, and then call in such additional aid as may be required. Wrong diagnosis and illogical and inadequate treatment have been one of the chief reasons for the flourishing of cults and quackery in the field of low-back symptomatology.

The greater number of pains in the low back, according to available statistical studies, will be the result of strains, acute or chronic, of ligaments, muscles, or fascia. The general principles of therapy are the same for sprains anywhere in the body; rest and support of the over-stretched fibers in a position of moderate relaxation until healing occurs, with the addition of heat and massage, at times, to help in the resorption of exudate, and exercises to strengthen the weakened muscles in the later stages of healing. Experimental and clinical studies have shown that at least several months are required for healing of simple ligamentous tears.<sup>83</sup> This would suggest that our therapy should be prolonged even in the simplest cases.

The spine, because of its peculiar structure, cannot be rested and supported as easily as many of the other joints. Complete immobilization is almost impossible. But relaxation and support are possible with the patient in a horizontal position in bed. The simplest form of splinting is rest upon a firm bed.<sup>84</sup> The ordinary bed can be adequate by placing under the mattress a piece of beaver board about three by three feet under the mid portion of the body, or by placing boards under the mattress. At times rest in bed is not possible, or feasible in the milder forms of strains, and here strapping of the back with adhesive plaster usually with transverse strips extending across the entire posterior aspect of the pelvis above the gluteal crease and the lower lumbar spine should be carried out, with the spine held in the best position for function, i.e., almost complete obliteration of lumbar lordosis. It is important that the strapping be applied as tightly as can be done with comfort. Where the skin becomes irritated readily, painting the area before strapping with compound tincture of benzoin is a distinct help. Such strapping is usually kept in place for about two weeks, and, in all but the very mildest cases, some support to the low back should be continued longer.

When the patient is put to bed the positions assumed by the patient should be those most conducive to the healing of the injury. The patient

should be horizontal with no more than one pillow under the head. Relaxation of the muscular spasm and support to the low back can best be secured by a pillow under the knees, and, if lordosis persists, a small pillow or folded sheet under the lumbar spine. The treatment is similar for strains of the lumbo-sacral joint, the sacro-iliac joints, and those which are a combination of these two. In lumbo-sacral strains support must be given to the low lumbar spine. In sacro-iliac strains support of the pelvis, as with a belt, is grateful. Treatment will vary somewhat according to the nature and extent of the injury.

Heat to the low back in any form is helpful; hot compresses, or dry heat from a lamp or baker, hasten the absorption of exudate which always occurs about a strain, relieve muscle spasm, and add to the comfort of the patient. Physicians are divided in the advocating of massage in the treatment of acute strains of the low back. It must be granted that it decreases exudate and improves the local circulation but it probably hinders the healing of torn ligaments. The writer has been in the habit of using massage only in the occasional chronic case where circulation is impaired and muscular exercise is difficult. An objection to massage is that in the later stages of treatment patients have been prone to depend upon it instead of upon properly supervised exercises for the development of strength in muscles.<sup>85</sup> In the acute stages of the spinal injury sedatives may be required to secure muscular relaxation. These vary from the simpler ones to the narcotics. If the injured low back is properly supported, their use is rarely necessary more than a few days.

As soon as the acute symptoms have subsided, exercises should be given to strengthen muscles and improve muscular tone, always with the expectation of a return of normal function.<sup>86</sup> In the severe cases prolonged rest in bed may be necessary with resumption of the upright position when pain and muscle spasm with movement of the legs in bed have disappeared. The time will vary markedly in each case, depending upon the healing. It is better to err on the side of over-treating since recurrence of symptoms when the patient is first ambulatory may necessitate further, prolonged rest in bed.

With simple strains a few days to three weeks rest in bed is usually adequate to relieve symptoms. This is followed by the gradual assumption of the



usual activities, but during this period it is wise to wear some support to the low back to prevent a recurrence of strain since the back is weak and it requires a long period for complete healing of the ligaments. Moreover, support in the form of a reinforced corset or brace can be so applied that it helps correct postural deformities. There are an infinite number of spinal supports, many of them helpful if properly applied. All must be fitted to each individual so that pressure is applied laterally to the pelvis and support is given to lift up the lower abdomen and flatten the lumbar spine. Such supports need frequent adjustments and should be used only temporarily, as a splint is used for any other sprain, and should be discarded when strength is regained and there is no danger of recurrence.

In certain instances, particularly in chronic strains, adhesions will form in and about spinal articulations and muscles will become shortened from protective muscle spasm. In such instances a comfortable position and proper mechanical alignment of the spinal joints may not be possible. To correct this a manipulation of the spinal or pelvic joints may be necessary. The necessity of this procedure can, in part, be determined by observation, and by roentgenograms. If, after rest in a firm bed for a week or two, the low back cannot be flattened while lying in bed, the list of the spine persists, the amount of motion in raising the straight leg has not greatly increased, and lateral roentgenograms of the lumbar spine taken with the thighs flexed do not show an appreciable difference from those taken with the thighs extended, manipulation of the spinal or pelvic joints is usually indicated, provided no local or general disease has been found to contraindicate this maneuver.<sup>87</sup>

Manipulations of the low back are best carried out under general anaesthesia, although spinal anaesthesia has occasionally been used. In manipulation for strains of the sacro-iliac joint the thigh on the affected side with the knee straight is forcibly flexed until it can be brought to a right angle with the abdomen. It is generally conceded that the click originally described by Baer<sup>88</sup> as an indication of a correction of a subluxation, is probably of no significance. In lumbo-sacral and low lumbar strains this same maneuver is carried out on both sides and in addition the thighs with knees flexed are brought over the abdomen, forcibly hyperflexing the lumbar spine. If there is limitation of lateral motion, the pelvis may be rocked laterally

upon the lumbar spine. After manipulation is completed the low back is strapped with adhesive and maintained with lumbar lordosis obliterated by pillows under the knees. If prolonged fixation is required, a plaster spica is applied on the affected side with the lumbar spine flat, and with the thigh in slight abduction, and about thirty degrees of flexion.

In certain clinics stiffening operations upon the low back and pelvic joints are advised after a trial of a brace or bed rest for several weeks without relief. The frequent use of such operative measures has led to the unwarranted and almost routine use of them by many unfamiliar with the care of injuries to the low back. In this way a very useful procedure has come into disrepute. In the writer's opinion there are limited and definite indications for fusion operations upon the low back and pelvis. These are: congenital abnormalities which interfere seriously with movement or stability in the low back; destructive disease which will heal most readily with continued immobilization, e.g., tuberculosis; and extreme muscular weakness where return of muscular power cannot reasonably be expected, e.g., poliomyelitis.

A large number of operative procedures have been advocated; lately, muscle cutting operations to lengthen tightened structures and relieve tension, which are too recent for comment. Injection of novocain or saline solutions along the course of the sciatic nerve, or other nerves to which pain was referred, are now rarely employed.<sup>89</sup> Operations have been devised for the removal of very long or deformed transverse processes or thickened articular facets but are rarely indicated.<sup>90</sup> The back stiffening operations are used particularly for the lumbo-sacral or sacro-iliac joints, rarely both. For the low lumbar spine and lumbo-sacral joints the Hibbs type of operation is used for the most part in America.<sup>91</sup> For fusion of the sacro-iliac joints the procedures advocated by Smith-Petersen<sup>92</sup> or Gaenslen<sup>93</sup> are usually carried out. Operations upon the spinal or pelvic joints should be performed only after the alignment of the spine or pelvic bones is the best that can be obtained for function in the later fixed position. It is particularly important to decrease the lumbo-sacral angle, and the lordosis of the lumbar spine before operation.

For the more severe injuries of the low back and pelvis, such as fractures, dislocations, or ruptures of the intervertebral disc, certain modifica-

tions and more prolonged treatment are usually required. The low back is one of the less frequent sites for fractures of the vertebral bodies. In vertebral fractures treatment consists in correction as far as possible of the vertebral contour and support in bed for at least two months.<sup>94</sup> Support to the injured part of the spine either by jacket or brace must be continued for a number of months after the patient becomes ambulatory. In fractures of the transverse process of the lumbar vertebrae, rest in bed with strapping for several weeks, followed by support to the back for one to two months is usually all that is required. In pelvic fractures the treatment will vary with the individual case; correction of deformity and support for at least six months is indicated. Some of the most troublesome and persistent cases of pain in the low back result from pelvic fractures where proper reduction has not been obtained.<sup>95</sup> In dislocations the treatment is similar, after reduction has been accomplished, to that used for fractures.<sup>96</sup> Operations are sometimes necessary to relieve pressure upon the spinal cord or its nerve roots but such procedures do not much concern us in a discussion of low-back pain. Injuries to the intervertebral disc without extrusion of the intervertebral disc into the spinal canal are treated by rest in bed, followed by spinal support. If the nucleus pulposus is extruded within the intervertebral canal, its removal by laminectomy may be necessary.<sup>97</sup>

Vertebral deformity of whatever sort, particularly lordosis, kyphosis or scoliosis, should be corrected if possible, failing this the back should be supported to prevent strain as well as increase of deformity; in the severe cases spinal fusion may be required.<sup>98</sup> In incurable cases like metastatic tumors, with our present imperfect knowledge, support to the spine and radiation of the portion of the back invaded by the tumor seem to offer the most in treatment.<sup>99</sup> In the late stages of spinal, malignant disease, the cutting of nerves or spinal sensory tracts, or massive doses of narcotics may be required to relieve pain.

In general terms we may say that treatment for low-back pain is usually fairly well indicated after a diagnosis has been made. Internal diseases with referred pain require treatment of the viscus causing the pain. Neurological or psychiatric disease when found in low-back pain should be treated by physicians competent in those fields of medicine. The bulk of the remainder are the peculiar respon-

sibility of orthopaedic surgery.<sup>100</sup> Often several factors will be found in one individual and cooperation between several doctors will be needed to obtain cure, the aim being to relieve pain, to cure disease, to correct deformity, and to prevent recurrence of the low-back pain.

### *Conclusion*

Backache, one of the most common of symptoms, arises from a large number of causes. It manifests itself either as local or symptomatic pain. Local pain is due to injury or disease of the spine and pelvis, or their supporting structures. Of injuries, sprains of the muscles, ligaments, or fascia are most common, with faulty posture very frequently acting as a predisposing cause. Of diseases of the spine rheumatoid arthritis and osteoarthritis are most common. In symptomatic backache the cause is usually a disease or functional disturbance in the abdominal or pelvic viscera, the pain being transferred to the cutaneous area of the nerve branches which supply the viscus affected.

The differential diagnosis is often tedious. It must first be determined whether the pain is local or referred. In referred pain, pain alone is present. Muscle spasm, tenderness, and limitation of motion in the low back are indications of a lesion in that portion of the spine or its contiguous structures. Several diseases may be active at the same time in producing low-back pain. This not unlikely possibility requires that a careful physical examination be performed as well as a systematic examination of the spine and its accompanying neurological structures, with such roentgenograms and laboratory data as may be indicated in each case.

Treatment must be comprehensive. One must remember that the patient is an individual with a visceral, neurological, or spinal lesion. The patient's fears and worries as well as his adjustments to difficulties must be considered. Nothing should be left undone which will add to his health and hasten recovery. Treatment should be sufficiently long, realizing that the processes of repair usually take place slowly, and all factors which may aid in preventing a recurrence of the low-back pain should be considered.

(The References cited in Dr. Kuhns' Essay will be found on pages 149-150.)

## THE RHODE ISLAND MEDICAL JOURNAL

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## THE FISKE FUND PRIZE ESSAY

At the Annual Meeting of the Rhode Island Medical Society held on the One Hundredth Anniversary of the founding of the Fiske Fund, the Secretary, Dr. Wilfred Pickles, announced for the Trustees of the Fiske Fund, Dr. Albert H. Miller, Dr. Roland Hammond and Dr. John E. Donley, that they had awarded to Dr. John G. Kuhns of Boston, Mass., the premium of \$200.00, for his Essay on "Low Back Pain." It is the privilege of the JOURNAL to publish this Essay in the present number and, according to the terms of the will of Dr. Caleb Fiske, to supply "each member of said Society with a copy of such Treatise for which premiums shall have been awarded."

It was the hope of the Trustees that on this Anniversary, an essay might be submitted which would rank with those of Usher Parsons, Edward Warren, Hobart A. Hare, Robert W. Lovett, Charles V. Chapin and the other writers who won for the Fiske Fund Essay its early enviable reputation. This hope is well realized in the present Essay. On a topic of common as well as of special interest, Dr. Kuhns has written a dissertation which is not only an exhaustive treatise for the specialist but also an interesting and instructive article for the general practitioner, on a subject with which he comes in daily contact.

For the 1937 Fiske Fund Essay, the Trustees have announced as the subject, "Newer Methods of Prevention and Treatment of Anterior Poliomyelitis." The premium is \$250.00. The regulations which govern the competition are outlined in the notice which is printed in the advertising section. In making the award, preference will be shown for the results of original research or investigation. The prize is open to general competition.

A. H. M.

## WILLIAM McDONALD, M.D.

William McDonald, Jr., son of a wealthy and prominent manufacturer in Albany, graduate in philosophy of Brown University, at which he pursued special studies in the department of psychology, also a graduate with exceptional honors, in arts and in medicine, of Columbia University, after serving a residency at the Rhode Island Hospital, was appointed psychoneurologist to Butler Hospital.

On the outbreak of the great war, Dr. McDonald surrendered his hospital connections and an extensive consultation practise in psychoneurology for the opportunity of performing a valuable military service. Returning to this country after the war, he was appointed lecturer on neurology at Yale University School of Medicine and filled this position for several years. He next gladly embraced an opportunity for research on infantile paralysis offered him by the Rockefeller Foundation. His zeal for original investigation, his fondness for children, his skill in diagnosis, his ingenuity in devising mechanical methods of treatment, and a disposition free from the restraint of inhibitory conservatism united to produce unusually successful results in dealing with cases of infantile paralysis. This work occupied the remaining years of his life.

Financially independent, with a genial personality, a brilliant mind, ardor for investigation, a singularly unselfish disposition; yet with greatly restricted eyesight, afflicted with the continuous suffering of a hopeless disease, childless, alone, the life of Dr. McDonald seems a tragic one. But he himself was never heard to complain. His friends considered him with wonder as he ignored his own condition and devoted his thought and effort to alleviating the suffering of others. With his effort crowned with such success, the tragic life of William McDonald may yet have been a happy one. On the day of his death, his friend and former patient, President Franklin D. Roosevelt, sent this telegram: "Deeply grieved at the news of our dear old friend's death. It is the end of a lifetime of service to others."

The sentiment of that telegram will find an echo in the hearts of Dr. McDonald's many friends in Rhode Island and wherever his attainments and character were known and appreciated.



## AMONG LIFE'S MIRACLES

A physician was once asked what was to him the most remarkable thing in medical experience. It is not easy to review the experience of forty years' practise and medical study but the answer came readily enough: "The resolution of the solidified lung of lobar pneumonia." Even to one familiar with intravascular coagulation, the appearance of the frog's web under the microscope with its transudation of corpuscles, the sweeping away of partially coagulated fragments, the intra-capillary adhesion of corpuscle masses, and hydraulic phenomena which might be likened to log jams in a mountain stream or slush formation in the gutter, so interesting in one's childhood—the resolution into a delicately crepitant sponge of tissue hard as liver, which will sink in water, must ever be recalled as a fascinating and almost miraculous phenomenon. Nor is the deportment of a pneumonia patient at the crisis hardly less remarkable and interesting. Of florid countenance, stertorous respiration, every gasp a struggle for breath, a fight with the grim reaper—and soon quieter breathing, profuse perspiration, a lowered temperature and refreshing sleep for both patient and practitioner. Nor are these any more remarkable than the removal of an enormous fibroid tumor adherent to everything in and out of sight, with much ligation and embroidery, a dry operative field, final closure of the incision and the patient recovering almost without pain and less temperature reaction than might come from a cold in the head. Consider also the extraction of teeth, that terror of our youth—operations under local anesthesia so cleverly instituted that the patient does not know he is being operated upon, or many of the now every day performances of medicine and surgery, and it will be seen that our beloved profession is constantly at work among the mysterious and the miraculous. One recalls the marvels of the birth of a creature from submarine to aerial respiration and the unfolding of the mind as years advance and it is not hard to realize that the astonishing and the romantic is an every day part of our life. Small wonder, then, that the cream of humanity clamor anxiously for admission to our ranks, for permission to enter a life of poverty, self sacrifice and humility, to be part and parcel of a life than which there is no greater usefulness.

W. L. C.

## HEALTH OFFICERS

Physicians know that public health administration is a difficult and important specialty and one in which proficiency can be obtained only by long training and experience. In the presence of an epidemic many important questions come up for decision: Should the schools be closed? What quarantine measures should be adopted? How much money should be spent for doctor care, for nursing care, for hospitalization and for serums or vaccines? Every year decisions must be made as to how the available funds can best be used; and the measures decided upon are usually valuable in direct proportion to the quality of the administration and personnel employed.

Excellent health officers are available. For states and cities, physicians, graduates of a school of public health and trained by experience in public health work, are usually the proper candidates, although many older health officers have gained their training by experience rather than early education. If those elected to serve the state or city appoint an unqualified man as health officer, they are guilty of a betrayal of trust.

Good health administration also requires a secure tenure of office both for the head and the other members of the department. A reasonably efficient organization cannot be hoped for if members are dropped for any cause other than failure to do a good job.

We physicians know these things and have an important civic duty to perform in making them clear to the public. This is not written as a criticism of any health officer but as a statement of principle and as a call to physicians to protect our health departments against the less well informed elements in the political parties.

W. P. B.

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**Personal Notes**

The RHODE ISLAND MEDICAL JOURNAL extends glad greetings to the *Journal* of The Connecticut State Medical Society, Volume one, Number one, August, 1936.

Preparations are well under way for the Fall Clinic Day at the Memorial Hospital on November 4. Dr. George M. Piersol of the Graduate School of the University of Pennsylvania will attend and with him will be Drs. Stroud, Bookus, Dunn and others. Dr. C. F. Dixon of the Mayo Clinic is expected to be present. The medical service is preparing a further report on Lorostidin treatment and

a clinical experiment with the new protein insulin for diabetis. Drs. Kelly and Holt will present motion pictures of pyloric stenosis. Dr. Hussey and assistants will show motion pictures of a series of gall bladder cases.

Dr. William Hunter, in 1755-56, delivered in the Old Colony House at Newport, R. I., the first systematic series of medical lectures ever given in this country. August 19, the Providence Medical History Club made its Second Annual Pilgrimage and its members were graciously entertained by Miss Anna Falconet Hunter of Newport, great-great-granddaughter of Dr. William Hunter. They visited the site of Dr. Hunter's apothecary, the house where he lived and his extensive gardens, Old Trinity Church where, in 1760, he was united in marriage with Deborah Malbone, and the home of the Newport Historical Society where many memorials of Dr. Hunter are preserved. His grave in Old Trinity Churchyard bears the inscription:—"In memory of Doctor William Hunter Who departed this Life On the 30th. January, 1777 In the 47th. year of his Age"

The Rhode Island Hospital will be represented at the Second International Congress Against Cancer, to be held at Brussels, September 20-26, by Dr. B. Earl Clarke and Dr. Herman C. Pitts. They sail on the Berengaria on September 12 and plan to return by the middle of October.

Dr. John M. Peters has returned from a visit at Dr. Grenfell's Laborador.

**Engaged:** Elizabeth Beaman Skelton, daughter of Dr. and Mrs. Creighton W. Skelton, to Donald Philip Lind, son of Mr. and Mrs. Godfrey A. Lind of Auburn.

**Married:** July 25, Miss Mildred S. Walker to Joseph H. Doll, M.D. Doctor and Mrs. Doll are residing in Pawtucket, R. I.

The American Board of Internal Medicine, Incorporated, has been organized through the combined effort of the American College of Physicians and the Section on Practice of Medicine of the American Medical Association.

The purpose of the Board will be the certification of specialists in the field of internal medicine, and the establishment of qualifications with the required examination procedure for such certification.

The first written examination will be held in December, 1936, and candidates successful in this test will be eligible for the first practical examination which will be conducted near the time for the annual session of the American College of Physicians at St. Louis in April, 1937. The second practical examination will be held at Philadelphia near the time of the annual session of the American Medical Association in Atlantic City in June, 1937.

Application blanks and further information can be obtained by addressing the chairman, Walter L.

Bierring, M.D., 406 Sixth Avenue, Des Moines, Iowa.

The next written examination and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in various cities in the United States and Canada on Saturday, November 7, 1936.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary, 1015 Highland Bldg., Pittsburgh (6), Pennsylvania. Applications for this examination must be filed in the Secretary's Office sixty days prior to the scheduled date of examination.

### Rhode Island Department of Public Health

Under a plan approved by the United States Public Health Service and with cooperation of the Public Health Service, the Division of Industrial Hygiene now functions as a part of the State Department of Public Health. The establishment of this Division has been made possible through funds available under the Social Security Act. James Philip Deery, M.D., Georgetown University School of Medicine, class of 1932, is director of the Division. William Anthony Mahoney, M.D., Tufts College Medical School, 1917, is Assistant Director.

Since Rhode Island is primarily an industrial state, this Division should play a significant role in the service of the Department of Health. The Division will present an interesting exhibit at the Rhode Island Industrial Exposition to be held at the Cranston State Armory, Providence, September 11th to the 19th, inclusive.

The laboratories of bacteriology and pathology of the State Department of Health announce a change in policy with reference to reporting.

Only positive reports of examinations for diphtheria, hemolytic streptococcus and others of similar character will be made over the telephone. Negative examinations will be reported by mail.

John H. Gordon, M.D., has completed the internship on the Fracture and Orthopedic Service at Rhode Island Hospital and will open his office in August, in the Hall Building, Pawtucket, R. I.

Robert S. Sherman, M.D., completed his internship at Memorial Hospital, Pawtucket and is now at the Long Island College Hospital taking special work.

Edwin B. Gammell, M.D., of East Barnet, Vermont, a graduate of the University of Vermont Medical School; and Lawrence Senseman, M.D., of West Barrington, R. I., a graduate of the College of Medical Evangelists, Los Angeles, California, commenced their internship at Memorial Hospital, Pawtucket, on August 1.

Dr. C. Melvin Bernhard, graduate of the University of Louisville, having completed a one year rotating internship in Lexington, Kentucky and a two years' surgical internship at the City Hospital,

Louisville, Kentucky, began a pathological internship, of one year's duration, at the Rhode Island Hospital on August 15th.

Dr. Knowles B. Lawrence finished his regular rotating internship at the Rhode Island Hospital on August 1st. He is now pathological intern at the New England Deaconess Hospital.

Dr. Edward L. Bosworth having completed a year's pathological internship has begun his regular rotating internship at the Rhode Island Hospital.

Dr. Robert F. Nuessle having finished his regular rotating internship at the Rhode Island Hospital on June 1st is now Resident Physician at the State Infirmary, Howard, R. I.

Dr. Alfred B. Sundquist, who finished his regular rotating internship at the Rhode Island Hospital in October, 1935, is now practising in Manchester, Conn.

Dr. S. Forrest Martin, who finished his regular rotating internship at the Rhode Island Hospital on May 1st, has commenced an internship at the Eye & Ear Infirmary in Boston.

Dr. Reeve H. Betts, who recently completed his regular rotating internship at the Rhode Island Hospital, has commenced a fellowship in Thoracic Surgery at the Lahey Clinic.

Dr. Norman Margolius, who completed his regular rotating internship at the Rhode Island Hospital on February 1st, has commenced a Gynecological internship at Mount Sinai Hospital, New York.

## RHODE ISLAND MEDICAL SOCIETY

### Minutes of the One Hundred and Twenty-fifth Annual Meeting

(Continued from page 130)

#### Report of the Committee on Necrology

JOHN WILLIAM KEEFE, Providence, R. I. Obituary, Volume XVIII, page 174.

JULIAN AUGUSTINE CHASE, Pawtucket, R. I. Harvard University Medical School, Boston, 1872; past president of the Rhode Island Medical Society; on staff of the Memorial Hospital; aged 86; died Aug. 12, 1935, of chronic myocarditis.

FRANCIS JOHN HIGGINS, East Providence, R. I. Obituary on page 29.

HORACE NEWELL WILLIAMS, Providence, R. I. Obituary on page 95.

FRANKLIN PIERCE CAPRON, Providence, R. I. Obituary on page 95.

RUFUS HERBERT CARVER, Providence, R. I. Obituary on page 105.

EDWARD J. LOGAN, Providence, R. I. Jefferson Medical College, Philadelphia, 1903; member of staff of St. Joseph's Hospital and Homeopathic

Hospital, Providence, R. I.; aged 67; died April 8, 1936.

VIRGIL H. DANFORD, Wallum Lake, R. I. College of Medicine, Ohio State University, 1915; Captain, Army Medical Corps; Resident Physician, Springfield State Hospital, Sykesville, Md.; Cleveland Municipal Sanatorium, Pawling Sanatorium, Troy, New York; Assistant Superintendent and Superintendent at Wallum Lake since 1931; aged 47; died April 21, 1936, of heart disease.

JOHN RIDLON, Newport, R. I. College of Physicians and Surgeons, Medical Department of Columbia College, New York, 1878; attending orthopedic surgeon, New York Orthopedic Dispensary and Hospital, and instructor in orthopedics at New York University Medical School; also on staff of Bellevue Hospital and Vanderbilt Clinic, New York; later on staff of Northwestern University Medical School, Rush Medical College and others in Chicago.

Dr. Ridlon was one time secretary of the Section on Orthopedic Surgery, A. M. A., and a member of the House of Delegates. He was past president of the American Orthopedic Association and honorary member of the British Orthopedic Association.

Dr. Ridlon was founder and past president of the Home for Destitute Crippled Children, Chicago. He was Orthopedic Surgeon to the Mercy, Michael Reese and Evanston (Ill.) Hospitals and the Newport (R. I.) Hospital. Aged 83; died April 27, 1936.

JOHN LANGDON, *Chairman.*

## PROVIDENCE MEDICAL ASSOCIATION

### Minutes of the May Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William S. Streker, on Monday evening, May 4, 1936, at 8:45 P. M.

The minutes of the last meeting were read and accepted.

The Secretary read a proposed resolution contained in a letter from Sherman Amsden, president of Doctor's Telephone Service, Inc., of New York City, relative to the allocation of one wave length throughout the United States for a Radio Paging Service for physicians and surgeons. The Secretary also read a letter from Dr. Olin West, secretary of the American Medical Association, in which it was suggested that no county medical society should adopt the proposed resolution. It was voted that the matter be laid on the table.



The Standing Committee having approved their applications, the following were elected to membership:

Pasquale Vincent Indeglia  
Seth F. H. Howes

The President announced the appointment of the following committee for the golf outing: Drs. Bolotow, Buxton, C. Cook, McCoart and McGuirk.

The first paper of the evening was by Dr. William A. Horan, and was entitled "The Backache Problem." The speaker began with a review of the anatomy of the parts involved. The history is very important. A complete physical examination and X-ray of the spine in both planes should be routine. There are two large groups, viz., those due to pathological changes in the bones, and those due to faulty posture. Changes in the bones may be due to tumors, infections, congenital deformities, fractures, Paget's disease, etc. Dr. Horan described cases illustrating the value of X-ray in this group.

The postural cases are easily recognized by history and physical examination. Causes may be toxic or mechanical. The toxic causes may be very difficult to locate.

The so-called "sciatic syndrome" occurs most frequently in males as a result of trauma. Immediate hospitalization, rest in a relaxed position, and traction of the affected side is the best treatment.

The paper was discussed by Drs. Danforth and Hawkins.

The second speaker was Dr. Francis C. McDonald of the Boston Floating Hospital, whose subject was "Clinical Rickets." Dr. McDonald had two main thoughts to present: first, that deficiency disorders may arise from faulty digestion and absorption as well as from inadequate ingestion; secondly, the possible significance that mild deformities of the skeletal framework, including the teeth, may have in influencing the happiness of 70% of patients.

The incidence and severity of rickets reflect the efforts of civilization to nourish the largest number of people. We do not see today the florid rickets seen in Glisson's time. We have better methods of treatment today, but must not become too complacent. There is constant need to change our laboratory methods to meet changing clinical concepts. Dr. McDonald discussed dental caries showing its infrequency in primitive people both ancient and modern, and its great increase with increase in civilization. He described the findings and conclusions drawn from a study of the skulls and teeth

of 300 students in 1931-34. There was a very high incidence of dental caries, asymmetry of the skull and face, chronic sinus disease and one-sided nasal obstruction, astigmatism, mal-occlusion, and flat feet. The speaker suggested that the members of the audience examine their neighbors to see the frequency of these defects.

The paper was discussed by Drs. Langdon, Corrigan, and J. Kelley.

The meeting adjourned at 10:40 P. M.

Attendance 93.

Collation was served.

Respectfully submitted,

HERMAN A. LAWSON, *Secretary*.

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### Minutes of the June Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the president, Dr. William S. Streker, on Monday evening, June 1, 1936, at 8:50 P. M.

The minutes of the last meeting were read and approved.

The Standing Committee having approved their applications the following were elected to membership:

Leo Vincent Hand  
Alexander F. Marzilli

The following amendment to the By-laws was proposed by the Standing Committee: That Section 4 of Article ii, entitled "Of Membership" be amended by adding the clause "and pay the first year's dues", this to be inserted in the second line following the word By-laws. The section will then read "Every person elected to membership shall sign the Constitution and By-laws and pay the first year's dues within three months of his notification of election, in default of which said election shall be void." It was voted to make this amendment to the By-laws.

The first paper of the evening was read by Dr. Bertram H. Buxton, and was entitled "Chorea Gravidarum. Report of a Case." The condition is very rare. The speaker reported a case occurring in a 21 year old woman. There is very little in the literature regarding this condition, and there is much difference of opinion. At the Providence Lying-In Hospital in over 50,000 cases admitted in the past 50 years there were but 3 cases. There are two schools of thought—one maintains that it is Sydenham's chorea occurring in pregnancy,

and the other that it is a different disease related to pregnancy. The condition usually occurs in young women often with a previous history of rheumatism or chorea. 25% have recurrences in subsequent pregnancy. Heart disease occurs in 1/3 of the cases. The mortality according to the textbooks is from 25-33%; the latest statistics over past 30 years show mortality of 12.7%. There is no special treatment. The majority of cases are mild and go to term. In the more severe cases it may be necessary to terminate pregnancy and this should be done by the least shocking procedure.

The second paper was by Dr. Walter Weigner who discussed the psychiatric aspects of Chorea Gravidarum. He discussed the case reported by the previous speaker and showed that there was a serious emotional upset with change in personality and a psychosis. On her first admission to the hospital the chorea cleared up very rapidly with psychiatric treatment and when the fear of pregnancy was dispelled. In the second episode there was rapid appearance and disappearance of symptoms with suggestion, and a state of ecstasy after the abortion. A psychogenic element in this condition is strongly suggested. In a review of the literature one finds four main groups:

1. A group in which sham abortion and other spectacular cures produced miraculous results. Illegitimate pregnancy, etc.
2. A group who became well very promptly after abortion.
3. A group with definite psychoses.
4. A large group in which chorea followed immediately after an acute emotional experience.

The speaker concluded that these cases do not represent an entity due to rheumatic infection activated by pregnancy—some are due to this condition but not all.

The papers were discussed by Drs. Partridge, Wells and Chafee.

The third paper of the evening was entitled "Gynecological Contributions of Classical Antiquity" and was read by Dr. Andrew W. Mahoney. It was a scholarly and very interesting account of medicine in the Graeco-Roman Era with a description of the contributions of some of the great physicians and surgeons of that period.

The paper was discussed by Dr. Donley.

The meeting adjourned at 10:45 P. M.

Attendance 78.

Collation was served.

Respectfully submitted,

HERMAN A. LAWSON, *Secretary*

# REFERENCES CITED IN DR. KUHN'S ESSAY ON LOW BACK PAIN.

1. Pottenger, F. M., Symptoms of Visceral Disease, C. V. Mosby Co., St. Louis, 1926.
2. Mitchell, S. W., Fat and Blood, J. B. Lippincott & Co., Phila., 1879.
3. Katzeff, M. G., Tuberculosis in infancy and childhood. New England Jour. of Med., 2:9:83, 1933.
4. French, H., Index of Differential Diagnosis, Wm. Wood and Co., 1917.
5. Allison, N., Backache, Am. Jour. Surg., 2:261, 1927.
6. Kuhns, J. G., Chronic back strain, Physiotherapy Review, 14:8, 1934.
7. Head, H., Studies in Neurology. Oxford University Press, London, 1920.
8. Carlson, A. J., Boyd, T. E., and Pearcy, J. F., Studies on the visceral sensory nervous system, Arch. of Int. Med., 30:409, 1922.
9. Deming, C. L., Interpretation of abdominal and back pain in urological diseases. Med. Times and Long Island Med. Jour., 61:293, 1933.
10. Graves, W. P., Lumbo-sacral pain, gynecological paper. Am. Jour. Orth. Surg., 15:807, 1917.
11. Lynch, F. W., Backache in gynecology, Calif. and West. Med., 23:856, 1925.
12. Bullard, E. A., Gynecologic backache. Am. Jour. Obst. and Gyn., 1:717, 1921.
13. Young, H. H., Gerachty and Stevens, Study and analysis of 356 cases of chronic prostatitis, Johns Hopkins Hospital Reports, 13:313, 1906.
14. Baker, T., Genito-urinary causes of low-back pain. Am. Jour. Orth. Surg., 15:819, 1917.
15. Zapffe, F. C., Autogenous vaccines in the treatment of sciatica. J.A.M.A., 64:238, 1915.
16. Osgood, R. B., Etiologic factors in certain cases of so-called sciatic scolioses. Jour. Bone and Joint Surg., 9:667, 1927.
17. Gowers, W. R., Lumbago. Brit. Med. Jour., 1:116, 1904.
18. Glenard, F., Les ptoses viscerales, diagnostic et nosographie. F. Alcan, Paris, 1899.
19. Keith, Sir Arthur, Hunterian lecture on the development of the upright posture in man. Brit. Med. Jour., 1:451, 1923.
20. Victor, A. C., Anatomic basis for the study of splanchnoptosis. New Engl. Jour. of Med., 206:1137, 1932.
21. Goldthwait, J. E., An anatomic and mechanistic conception of disease. Boston Med. and Surg. Jour., 172:881, 1915.
22. Coffey, R. C., Gastro-enteroptosis, D. Appleton Co., N. Y., 1923.
23. Courtney, J. W., The psychoneurotic backache. Boston Med. and Surg. Jour., 189:1061, 1923.
24. Henninger, C. H., Cord and nerve affections causing low back pain. Am. Jour. Orth. Surg., 15:814, 1917.
25. Kulowski, J., and Scott, W., Localized adhesive, spinal arachnoiditis, Jour. Bone and Joint Surg., 16:699, 1934.
26. Tamaki, K., Thirty-nine extra-medullary tumors of the spinal cord. Am. Jour. Surg., 22:397, 1933.
27. Swaim, L. T., and Kuhns, J. G., Treatment of arthritis of the spine, Arch. of Phy. Therapy, X-ray and Radium, 13:517, 1932.
28. Gunther, L., Radiating pain in hypertrophic arthritis. Calif. and West. Med., 29:152, 1928.
29. Waterman, J. H., and Jaeger, C. H., Caries of the spine, an analysis of 1,000 cases. Trans. Am. Orth. Assn., 14:283, 1901.
30. Wilensky, A. O., Osteomyelitis of the spine. Ann. of Surg., 89:561, 1929.
31. Gibney, V. P., The typhoid spine. Trans. Am. Orth. Assn., 2:19, 1889.
32. Brockman, E. P., Early diagnosis of malignant disease of bone. Practitioner, 130:199, 1933.
33. Copeland, M. M., Metastatic lesions of bone, Radiology, 16:198, 1931.



34. Kuth, J. R., A study of 208 cases of lower back pain., *Jour. Bone and Joint Surg.*, 4:337, 1922.
35. Willard, DeF. P., Inefficiency due to back strain and faulty posture in unseasoned troops. *Am. Jour. Orth. Surg.*, 18:429, 1918.
36. *Body Mechanics*. Chapter IV. Goldthwait, Brown, Swain, Kuhns, J. B. Lippincott Co., Philadelphia, 1934.
37. Saxl, A. Statische Kreuzschmerzen, *Wein. Klin. Wchnschr.*, 45:1465, 1932.
38. Goecke, C., Die Bewertung von Skoliosen bei Wirbelsäulen Verletzen. *Arch. f. Orth. u. Unfall Chir.* 23:408, 1925.
39. Rocher, H. L., and Guerin, R., Consideration sur un cas d'épiphysite vertebrale. *Jour. de méd de Bordeaux*, 110:253, 1933.
40. Duncan, W., Significance of radiologic findings in low back pain, review of 500 cases. *Radiology*, 20:282, 1933.
41. Goldthwait, J. E., Variations in anatomic structure of the lumbar spine. *Jour. Orth. Surg.*, 2:416, 1920.
42. Odgers, P. N. B., Lumbar and lumbo-sacral joints. *Jour. of Anat.*, 67:301, 1933.
43. Bauman, G. I., Relations of lesions of the transverse processes to pain in the back and legs. *Jour. Bone and Joint Surg.*, 5:579, 1923.
44. Meycrding, H. W., Spondylolisthesis, *Surg. Gynec. and Obst.*, 54:371, 1932.
45. Vance, E. B. M., Low backache from the orthopaedic point of view. *Med. Jour. of Australia*, 1:707, 1934.
46. Lowman, C. L., Role of iliolumbar ligaments in low back strains. *J.A.M.A.*, 87:1102, 1926.
47. Billington, R. W., Willis, T. A., and O'Reilly, A., Backache, *Jour. Bone and Joint Surg.*, 12:290, 1929.
48. Carscadden, W. G., Early inflammatory reactions in tissues following simple injury. *Arch. of Path. and Lab. Med.*, 4:329, 1927.
49. Patek, R., Static deformities as a factor in the production of so-called hypertrophic arthritis. *Jour. Orth. Surg.*, 3:324, 1921.
50. Craig, W. McK., and Ghormley, R. K., The significance of sciatic pain. *J.A.M.A.*, 100:1143, 1933.
51. Freiberg, A. H., Sciatic pain,—its clinical significance. *Ohio State Jour. Med.*, 30:21, 1934.
52. Tschurajew, J. J., Die Innervation der grossen zehnen der unteren Extremität des Menschen, etc., *Morphol. Jahrb.*, 58:1, 1927.
53. Goldthwait, J. E., The pelvic articulation. *J.A.M.A.*, 49:768, 1907.
54. Boland, B. F., Separation of symphysis pubis, *New England Jour. of Med.*, 208:431, 1933.
55. Kleinberg, S., Fractures of the spine, *Jour. Bone and Joint Surg.*, 4:80, 1922.
56. Schmorl, G., Zur pathologischen Anatomie der Wirbelsäule, *Klin. Wchnschr.*, 8:1243, 1929.
57. Colvin, A. R., Lower back pain, *Am. Jour. Orth. Surg.*, 18:384, 1918.
58. Herndon, R. F., Back injuries in industrial employees. *Jour. Bone and Joint Surg.*, 9:234, 1927.
59. Osgood, R. B., Orthopaedic aspects of chronic arthritis. *Jour. Bone and Joint Surg.*, 8:26, 1926.
60. Wilson, P. D., Back and foot strain, *Jour. Industrial Hygiene*, 4:106, 1922.
61. Goldthwait, J. E., Backgrounds and foregrounds of orthopaedics, *Jour. Bone and Joint Surg.*, 15:279, 1933.
62. Brown, L. T., A combined medical and postural examination of 746 young adults. *Am. Jour. Orth. Surg.*, 15:774, 1917.
63. Sicard, J. A. Néurodocitis et funiculites vertébrales, etc., *Pressc méd.*, 26:9, 1918.
64. Wentworth, E. T., Systematic diagnosis of backache, *Jour. Bone and Joint Surg.*, 8:137, 1926.
65. Berry, J. M., Low back pain, *Arch. of Surg.*, 11:883, 1925.
66. Brackett, E. G., Low-back pain, *Jour. Bone and Joint Surg.*, 12:325, 1930.
67. Carnett, J. B., Intercostal neuralgia as a cause of abdominal pain. *Surg., Gynec. and Obst.*, 42:625, 1926.
68. Graham, E., *Surgical Diagnosis*, Vol. III, Saunders Co., Phila., 1930.
69. Goldthwait, J. E., An anatomic explanation of many cases of weak or painful backs as well as many leg paralyses. *Boston Med. and Surg.*, 168:128, 1913.
70. Kuhns, J. G., Hypertrophic arthritis of the hip joint. *New Eng. Jour. of Med.*, 210:1213, 1934.
71. Hauser, E. O. W., Low back pain, a new explanation of the pathogenesis and the treatment. *Surg., Gynec. and Obst.*, 57:380, 1933.
72. Smith-Petersen, M. N., Routine examination of low back cases with particular reference to differential points between lumbo-sacral and sacro-iliac regions. *Jour. Bone and Joint Surg.*, 6:819, 1924.
73. Danforth, M. S., and Wilson, P. D., The anatomy of the lumbo-sacral region in relation to sciatic pain. *Jour. Bone and Joint Surg.*, 7:109, 1925.
74. Osgood, R. B., and Morrison, L. B., Problem of industrial lame back. *Boston Med. and Surg. Jour.*, 191:381, 1924.
75. Lange, M., *Die Wirbelgelenke*, F. Enke, Stuttgart, 1934.
76. Wolff-Eisner, A. Über die Bechterew-Strümpellsche Erkrankungen. *Med. Klin.*, 27:801, 1931.
77. Garvin, J. D., Hypertrophic arthritis of spine; its incidence and nature in patients more than 50 years old. *Arch. of Surg.*, 15:118, 1927.
78. Pavlovski, A. J., and Fitte, M. Cáncer metastásico vertebral. *Rev. de ortop. y traumatol.* 2:321, 1932.
79. Steindler, A., Osteomyelitis of the spine. *Jour. Iowa Med. Soc.*, 20:246, 1930.
80. National Safety Council Bulletin Catalogue, Chicago, 1932.
81. Miller, N. F., Posture studies in gynecology, *J.A.M.A.*, 89:1761, 1927.
82. Mennell, J., Backache, J. and A. Churchill, London, 1931.
83. Dehne, E. Die Klinik der frischen und habituellen adduktions-spinationsdistortion des Fusses. *D. Ztschr. f. Chir.* 242:40, 1934.
84. Brown, L. T., The conservative treatment of backache. *Jour. Bone and Joint Surg.*, 14:157, 1932.
85. Atsatt, R. F., Sacro-iliac strain. *Physiotherapy Review*, 14:139, 1934.
86. Goldthwait, J. E., Backache, *New England Jour. of Med.*, 209:722, 1933.
87. Wright, C. S., Manipulative surgery. *Canadian Med. Assn. Jour.* 32:64, 1935.
88. Baer, W. S., Sacro-iliac strain. *Bull. Johns Hopkins Hosp.*, 28:159, 1917.
89. Putti, V., Sciatica, *Lancet*, 2:53, 1927.
90. Shackleton, W. E., Some of the surgical aspects of painful backs. *J.A.M.A.*, 66:1600, 1916.
91. Hibbs, R. A., Treatment of vertebral tuberculosis by fusion operations. *J.A.M.A.*, 71:1372, 1918.
92. Smith-Petersen, M. N., Tuberculosis of the sacro-iliac joint. *Surg. Clinics of North American*, 1:703, 1921.
93. Gaenslen, F. J., Sacro-iliac arthrodesis. *J.A.M.A.*, 89:2031, 1927.
94. Davis, A. G., Fractures of the spine. *Jour. Bone and Joint Surg.*, 10:133, 1928.
95. Leadbetter, G. W., Fractures of the pelvis. *South. Med. Jour.*, 25:742, 1932.
96. Kidner, F. C. and Muro, F., Tuberculosis of spine in children, comparative results of operative and non-operative methods of treatment. *Jour. Bone and Joint Surg.*, 9:649, 1927.
97. Alajouanine, T., and Petit Dutailis, D., Le nodule fibro-cartilagineux de la face postérieure des desques intervertébraux, etc. *Press méd.* 38:1749, 1930.
98. Miltner, L. J., and Lowendorf, C. S., Low-back pain. *Jour. Bone and Joint Surg.*, 13:16, 1931.
99. Herendec, R. E., Changes in primary and metastatic bone tumors following various doses of roentgen ray. *Radiology*, 13:326, 1929.
100. Bristow, R., Treatment of joint and muscle injuries. *Oxford Med. Publications*, 1917.





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*In This Number*

An Address by the Governor of the State of Rhode Island

A History of the Rhode Island Hospital by Dr. John M. Peters, Superintendent Emeritus

Narcosis Therapy in Psychoses by Dr. George H. Alexander of Butler Hospital

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# VITAMINS IN CANNED FOODS

## IV. VITAMIN B<sub>1</sub>

The story of vitamin B<sub>1</sub> is quite long and involved. Properly, it has been fully covered at some length in authoritative dissertations on the vitamins (1).

The original vitamin B of Eijkman and of Funk, while definitely possessed of antineuritic potency, is now known to be of a complex nature. Between 1919 and 1926, the vitamin B complex was resolved into vitamins B (B<sub>1</sub>) and G (B<sub>2</sub>). Subsequent work has indicated the existence of other vitamins in the complex, whose chemical natures or relations to human nutrition are not as yet clearly understood.

As a direct result of many researches on vitamin concentrates, the chemical identity of the crystalline antineuritic factor has recently been described as a derivative of 6-aminopyrimidine (2).

It has been known for many years that vitamin B<sub>1</sub> may be destroyed by heat. In the canning procedure, a number of heat treatments of food may be involved, especially in the thermal "processing" of the product to insure its preservation. In the "process", many foods are subjected to a heat treatment after sealing in the can, to destroy spoilage organisms which may be present on the raw material. In other cases, the food is filled into the cans at a sufficiently high temperature to obtain the same result. Therefore,

the question of the effect of the canning procedures on vitamin B<sub>1</sub> frequently arises.

The times and temperatures necessary for the processing of canned foods are governed by a number of factors, important among them being the pH of the food itself. Highly acid foods require only short heat processes at the temperature of hot or boiling water to destroy spoilage organisms. The so-called "non-acid" or "semi-acid" products require higher temperatures — usually 240° F. (116° C.).

As might be expected, acid foods have been found to suffer only a slight loss of vitamin B during canning (3).

The degree of retention of vitamin B<sub>1</sub> in the non-acid foods is not as high as in the acid foods. (4).

This is partly due to the heat treatments accorded them and possibly also to their low acidity, since the vitamin is more stable in acid media.

The facts in the case may be summarized briefly by the statement that commercially canned foods may be depended upon to supply vitamin B to extents consistent with the amounts of the vitamin originally present in the raw materials from which they were prepared. Because of their widespread use, canned foods contribute a notable amount of vitamin B<sub>1</sub> to the American dietary.

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(1) Vitamins: A Survey of Present Knowledge  
Medical Research Council, Special Report  
Series, No. 167, 1932. His Majesty's Stationery Office, London

The Vitamins  
H. C. Sherman and S. L. Smith  
1931 Am. Chem. Soc. Monograph,  
2nd Edition

(2) 1935. J. Amer. Chem. Soc. 57, 1751

(3) 1932. Ind. Eng. Chem. 24, 457

(4) 1932. J. Nutrition 5, 307

*This is the seventeenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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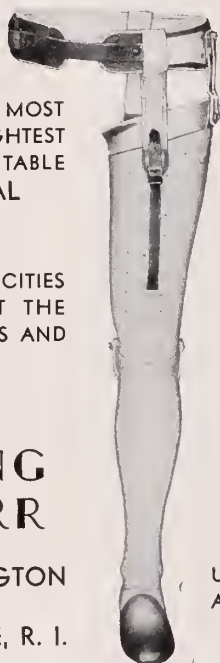
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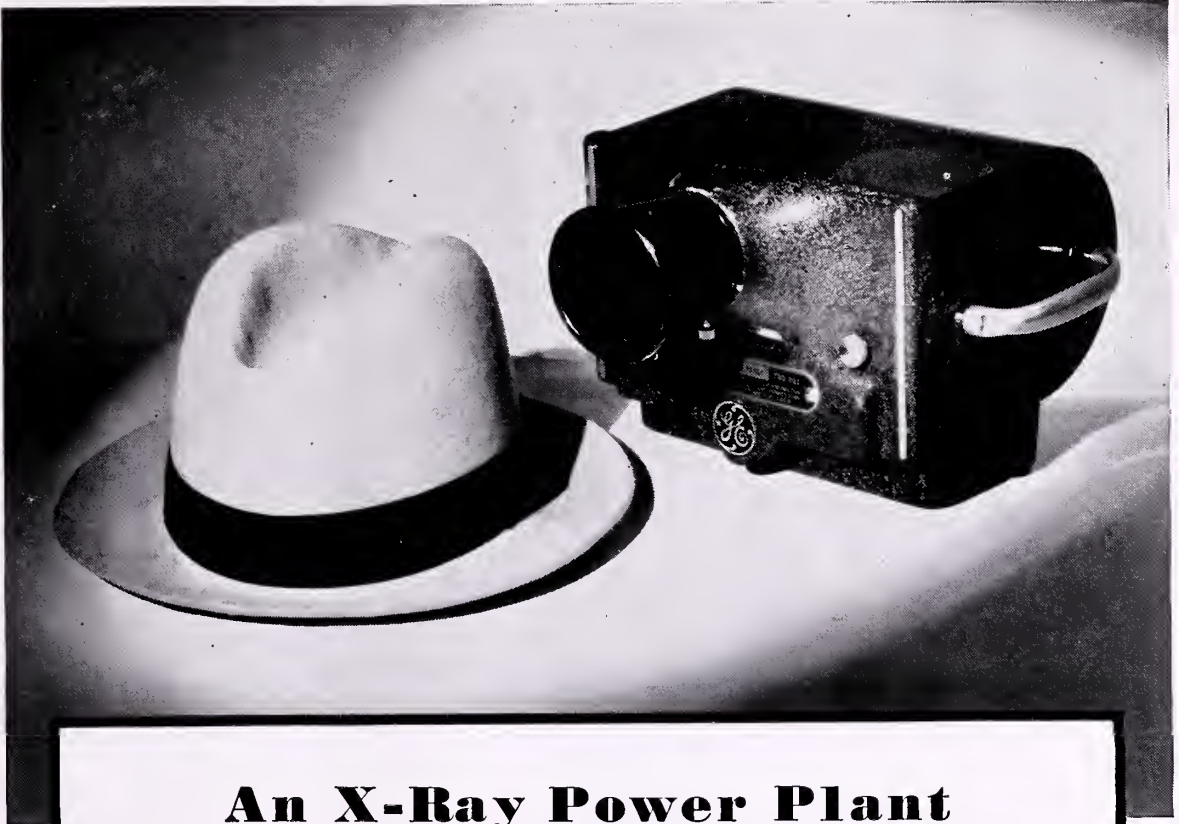
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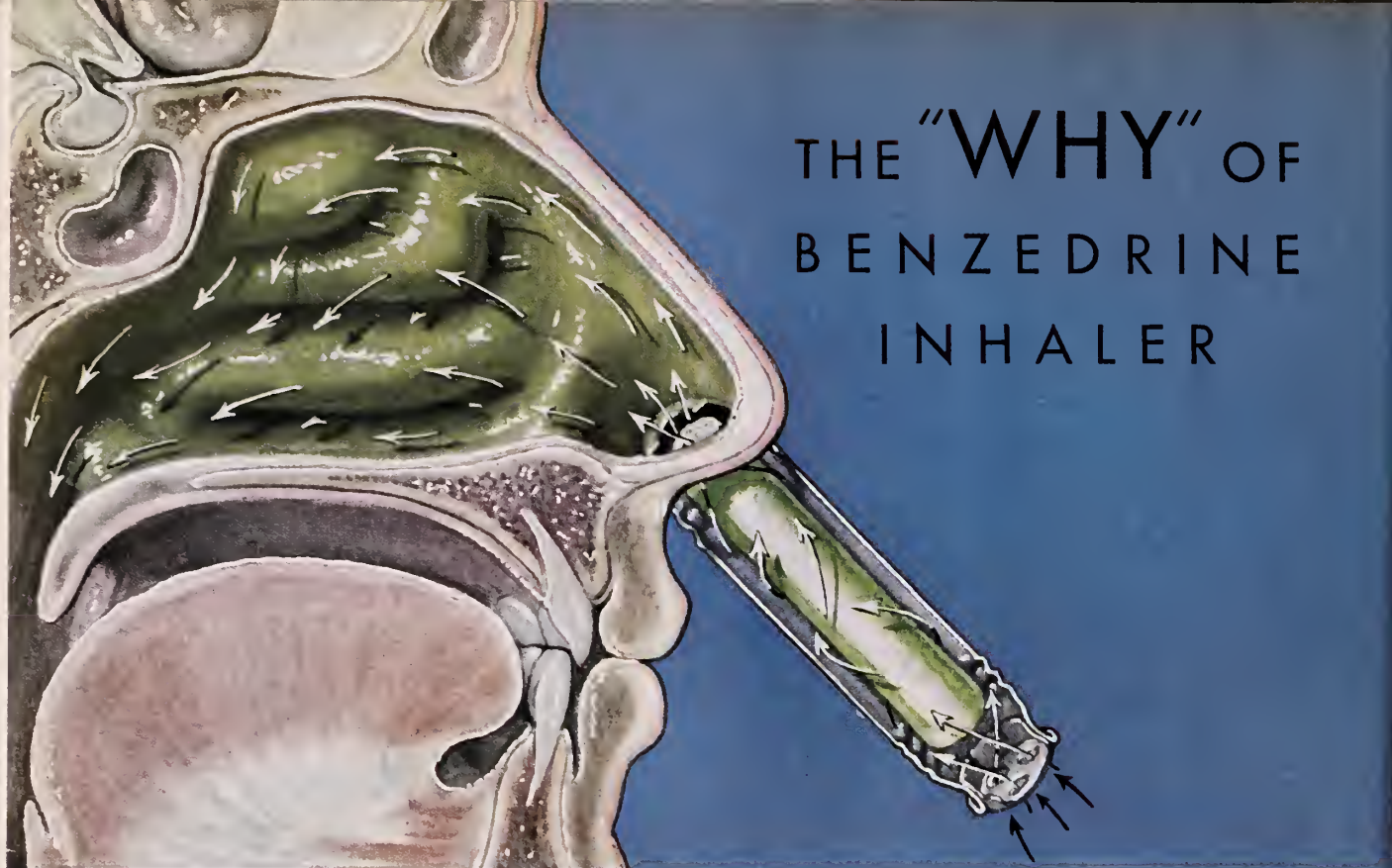


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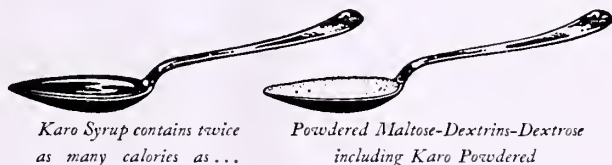
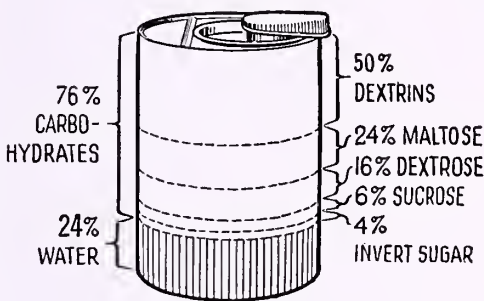
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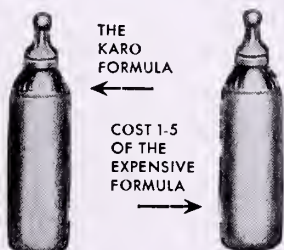
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## NARCOSIS THERAPY IN PSYCHOSES\*

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BUTLER HOSPITAL, PROVIDENCE, R. I.

During the course of treatment of certain mental illnesses, the problem of controlling states of acute excitement often comes sharply into the foreground. In the manic phase of the Manic Depressive Psychosis, or in the catatonic excitement of Schizophrenia, it becomes imperative at times to diminish the excessive physical activity of the patient, if severe physical exhaustion, with its added deleterious effects, is to be avoided. Of almost equal importance is the necessity for reducing the increased potentialities of the patient for traumatic injury to himself or others during his poorly directed overactivity. For a certain number of these extremely disturbed patients, the employment of the continuous bath, or of packs, is ineffectual beyond insuring physical restraint, which, in itself, seems but to further excite the patient psychically, and this added stimulation may reach a degree so adversely affecting his vital processes that discontinuance of these forms of therapy becomes necessary. With those commonly used avenues of approach closed, only the pathway of chemical control of the excitement remains open, and, too frequently, sedatives in the commonly used dosage likewise fail to produce the desired result. It is with a further extension of the chemical attack upon the problem, by means of drug sedation, that we concern ourselves in the following case report and discussion: A method of treatment commonly referred to as prolonged, or deep narcosis therapy.

Limitations of time forbid more than passing reference to the development of the treatment as employed today. The increasing frequency of its use during the past few years, and more numerous references to it in medical literature today, lend to the therapy an aspect of modernity. The funda-

mental principles of the treatment, however, were recognized as early as 1870, and in 1882 favorable results were reported in the treatment of psychoses by prolonged periods of chemically induced sleep. Chloroform, alcohol, ether, opium derivatives and similar drugs were utilized at that time—agents which lent themselves to a variety of undesirable accidents and toxic effects, which overshadowed the beneficial results obtained, and soon led to the practical abandonment of the maintenance of prolonged narcosis as a therapeutic measure in psychotic states. During the present century, however, there have been evolved more efficacious sedatives, possessing minimal undesirable side-reactions, and considerably wider margins of safety—in particular, those of the barbitol group. As a result, there has been a gradually increasing re-interest developed in the employment of such sedatives in large amounts in the treatment of psychoses.

The following case report has been abstracted from the records of Butler Hospital because of the excellent result obtained in the treatment of a state of severe excitement by means of a prolonged period of deep narcosis maintained by sodium amytal. It should be borne in mind, however, that an exceptionally favorable response was secured in this case, while in others, to be referred to later, less encouraging results were obtained.

### *Case Report*

The patient, an adopted, single, white, 17-year-old high school girl, was admitted to the Hospital on July 5, 1935, and paroled on August 24, 1935.

The admission anamnesis secured from the patient's foster mother revealed the adoption of the patient from a Catholic infant asylum at about one year of age. No details relative to heredity, birth or development during the first year of life were obtainable. There were no other children in the family, and the economic status of the home was comfortable until the patient was about six years of age. Financial reverses were then productive of marginal to dependent economic levels, which have continued to date. The foster mother and the patient have maintained the home through part-time employment since the death of the foster father three years ago. The general home atmos-

\*Read at Butler Hospital, Clinic Day, March 6, 1936.

\*The author is indebted to Dr. Arthur H. Ruggles, Superintendent, Butler Hospital, Providence, R. I., for permission to utilize the case report in this paper.

phere has always been somewhat undesirably colored by the foster mother's neurotic trends and occasional seizures of epileptiform type, but, on the whole, the patient appeared normally contented in the home, and affectionate toward her foster parents.

A review of the patient's personal background revealed no serious illnesses, severe traumata, or major operative procedures. The school history was that of an average student, presenting no unusual difficulties of adjustment to teachers or other students. General habits were good, and the menstrual history normal. Neurotic traits, however, were described during childhood, in the form of persistent night terrors and somnambulism at about the age of four; a tendency to stammer when excited; and enuresis nightly for a year, from the ages of six to seven, and persistent irregularly thereafter to the age of eleven.

In personality make-up, the patient was considered to have been an agreeable, pleasant, adaptable girl, who expressed no strong likes or dislikes, even tempered, and more inclined to follow than lead in social activities. Within the home she spent much of her time reading, sketching, or listening to the radio. Outside of the home she was active and fond of most outdoor sports. Interests in the opposite sex were not marked, and there was no exaggeration of religious interests. No eccentricities of thought or behavior, mood swings of abnormal degree, or marked seclusive trends were noted. One month prior to the onset of her mental illness, the patient first learned from her foster mother that she was an adopted daughter only, but superficially presented no adverse reaction to this knowledge.

Frank evidence of mental disturbance first appeared suddenly during the patient's attendance at her high school commencement dance on June 21, 1935, at which time she behaved in an excessively hilarious manner, and made many sarcastic and insulting remarks to friends whom she encountered there. For one or two days following, her behavior was not remarkable, though she appeared tense, but she soon began to display outbursts of excited irritability, general overactivity and overtalkativeness, episodes of erratic behavior, and developed an anorexia and insomnia. These symptoms increased in severity, and prior to entrance to the Hospital, she had become more highly excited, expressed delusions of having been married to a

chance acquaintance, whom she had met a few days before, and of his having performed a brain operation upon her, appeared confused and dazed at times, and responded occasionally as if to auditory hallucinations. During this period, nourishment and fluids were poorly taken, and the patient appeared slightly feverish. A psychiatrist consulted at this time advised institutionalization, which was accepted without protest by the patient.

On entrance to the Hospital, general physical and neurological examination, supplemented by complete blood, urinary and basal metabolic studies, disclosed no significant variations from the normal.

The patient's mental picture on admission, and during the first three weeks of hospitalization, was characterized by a variety of psychotic manifestations. These included periods of excited overactivity, overtalkativeness, and outbursts of irritability; and a stupor reaction of a few days' duration, with rejection of food, self-induced vomiting, resistiveness, negativism, cerea flexibilitas, posturizing, and apparent auditory hallucinosis. Misidentification of individuals about her was persistent, as were expressions of delusions of marriage and of having undergone a brain operation. Questionable visual and olfactory hallucinosis could not be definitely distinguished from possible illusions. At all times, she was but little influenced by environmental stimuli. Orientation was well preserved, and insight and judgment were completely absent.

During the fourth week in the Hospital, the patient's mental condition became definitely worse, and almost continuous hyperactivity and excitement by day and night became established. Continuous baths, neutral wet packs, and sedatives in moderate dosage proved entirely ineffectual. She was presented, at this time, at Staff Conference, where a diagnosis of Schizophrenia, Catatonic Type, was made, and, in view of the increasing severity of the symptomatology, and the failure to respond to commonly effective therapy over a period of a month, a course of deep narcosis was recommended as a final therapeutic resort.

A routine technique developed here, for employing narcosis therapy, was utilized in this case, the salient features of which may be summarized as follows:

Written permission was secured from the patient's foster mother to institute the treatment, after a general discussion with her of the possible benefits and potential dangers involved. Complete



physical and laboratory examinations were made to re-check earlier studies and rule out acute or chronic debilitating illness of organic type. The patient was informed that a prolonged period of sleep was to be induced to hasten recovery, and, when all arrangements were completed, she was transferred to a quiet, semi-darkened room for the induction of narcosis. Special nurses were assigned to the exclusive care of the patient, and their constant bedside attendance was obligatory in order that collapse, tongue-swallowing with suffocation, or other complications could be instantaneously noted. Two-hourly changes of the patient's position were required to minimize the possibility of the development of hypostatic pneumonia, favored by the relative immobility of the patient, and the decreased respiratory depth during narcosis. An apparatus for the administration of carbon-dioxide and oxygen, as well as equipment for injection of cardio-respiratory stimulants were kept at the bedside at all times for emergency requirements. In the room at all times, quietness, semi-darkness, and a minimum of even whispered conversation were maintained. During the patient's semi-lucid periods, the nurses were instructed to avoid discussing her illness with her, beyond offering simple encouragement and positive suggestion of improvement, with eventual recovery.

Narcosis was induced on August 9th, by the intravenous injection of a five percent solution of sodium amytal, injected at a rate not exceeding one cubic centimeter per minute, until the patient was in deep slumber. Blood pressure and pulse recordings were made every five minutes during the injection, every ten minutes for the following half hour, and every two hours thereafter. Rectal temperatures were taken three times daily. Following the initial intravenous injection, narcosis was maintained by oral and rectal administration of the drug. Additional intravenous or intramuscular injections were not required in this case. The amounts of sodium amytal administered varied from 9 to 15 grains, and were repeated as frequently as the patient showed signs of restlessness and emergence from narcosis. Twice during each 24-hour period, the patient was allowed to emerge into sufficiently light narcosis to take nourishment and fluids by mouth, or to be safely artificially fed, if necessary. At this time, also, dejections and voiding were encouraged, and bathing and general hygienic measures were carried out. In the event of failure

to void for 12 to 15 hours, with evidence of bladder distention, catheterization was employed, and enemas were given routinely every second day, to insure satisfactory fecal elimination. Fluid nourishment of at least 2000 cc., representing at least 2000 calories, was given in each 24-hour period, and adequate vitamin intake was secured by the inclusion of fruit juices and haliver oil, with viosterol, in the diet. A high carbohydrate diet was employed and, following each feeding, five units of insulin were administered as a metabolic stimulant. To counteract the usual slight depression of blood pressure associated with the action of sodium amytal, three-eighths grain doses of ephedrin sulphate were given with alternate doses of the sedative. When mild mucoid accumulations in the throat proved troublesome, small doses of atropin sulphate were administered from time to time. All drugs, the caloric and fluid intake, urinary output and the hours of deep and light narcosis were charted and totalled for each 24-hour period. Laboratory studies during the course of treatment consisted of a white blood count and differential, and routine urinalysis, including a test for acetone, every second day, and blood sugar and urea levels were checked every five days. Complete laboratory studies were again made a day or two following termination of treatment, and a comparison with those made prior to, and during treatment revealed only an insignificant lowering of the total leucocyte count. There was no suggestion of agranulocytic blood changes, or other evidence of organic damage.

In this case, the total sodium amytal administered during the period of narcosis was 542 grains. The minimum amount given in any 24-hour period was 30 grains, and the maximum 96 grains. Of the 192 possible hours of deep narcosis, 136 hours were classified as deep, and the remaining 56 hours as light. At no time during the treatment was the patient fully out of narcosis. The minimum hours of deep narcosis recorded for any 24-hour period was eight hours, and the maximum was twenty-one hours. The averaged caloric intake for each 24-hour period was 2,380 calories, and the averaged total fluid intake was 2,913 cc. The patient's vital signs and blood pressure presented no unusual deviations beyond a slight elevation of pulse and respiratory rates on the 6th and 7th days of the treatment, associated with mucoid accumulations in the bronchi on one occasion, and moderate abdominal distention on the other. Throughout the narcosis period, no

complications of serious import presented themselves, and a comparison of the patient's weight prior to treatment, and that two days following treatment showed a loss of only four pounds.

Before full emergence from narcosis, the patient was transferred to a light, pleasant, colorful room in another section of the Hospital, and the physician who had conducted the treatment utilized the "twilight" stage in emergence for the initiation of psychotherapeutic contacts, continued in the form of daily psychotherapeutic sessions until the patient left the hospital.

At the end of the eight day period of narcosis, the patient was permitted to emerge from narcosis by rapid diminution of the amounts of sedative administered.

In this case, treatment was terminated on August 16th, and during early emergence, as usually noted, the mental picture appeared unaltered as compared with that on initiation of narcosis. On August 17th, a short convulsive seizure occurred—a phenomenon also occasionally witnessed in other cases—following which there was an immediate and marked improvement in the patient's environmental contact, and she became quiet, with decreased incoherency and hallucinosis. By the following day, August 18th, while vomiting had persisted since emergence, the patient was quiet, coherent and rational, normally responsive to, and interested in, environmental occurrences, and hallucinosis was absent. Mental improvement continued through the following day, and fluids were well retained. On the next day, August 20th, the patient was well enough to be transferred to a convalescent section, where she remained for another four days, until her parole on August 24th—eight days following the termination of deep narcosis therapy. At the time of parole, only one slight residual of her psychosis was in evidence, and she appeared essentially well physically and mentally.

After leaving the Hospital, the patient returned for weekly psychotherapeutic sessions. The slight residual of her psychosis was absent at the expiration of two weeks. A month and a half later, the patient returned to school for postgraduate courses, and shortly thereafter secured part-time stenographic employment after school hours. At present, six months following parole, the patient continues to attend school, carry on part-time employment, has gained about 16 pounds in weight, and is entirely well physically and mentally.

### *Discussion*

During the past two years, deep narcosis therapy has been employed at Butler Hospital on several occasions, during which time a satisfactory routine for its administration was being evolved. During the past six months, this routine technique has been utilized in five cases, in one of which discontinuance of the therapy was forced on the 4th day, because of potentially dangerous physical complications.

Of the remaining four completed cases, including the case reported in detail above, two patients, or fifty percent of the cases, were well enough to leave the Hospital approximately one week following narcosis therapy, and have remained entirely well for periods of four and six months, respectively. Both of these cases presented variable degrees of excitement, bizarre behavior, delusions, and probably hallucinosis, and were classified as Schizophrenic Reaction Types.

A case presenting a deep stupor reaction and persistent preoccupation, with suicidal trends, responded with definite improvement for a two-week period, followed by gradual relapse, although not to the same low level as existent prior to narcosis treatment. The question as to a benign or malignant stupor reaction in this patient was left open.

The remaining case of this series—an acute excitement in a predominantly manic-depressive, manic picture—failed to show any improvement whatsoever following narcosis therapy.

In all of the above cases, sodium amytal was used exclusively as the narcotizing agent, and in most of the cases reported in the literature this drug, or a member of the same barbitol group, has been employed. The question as to whether the beneficial results obtained are attributable to a specific action of barbiturates upon cerebral cellular dynamics and chemistry, as some investigators have maintained, is still a mooted question. Until further studies of prolonged narcosis maintained by other than barbituric-acid derivatives have been made, the question as to their specific action, as opposed to a general effect of a prolonged period of narcosis, however produced, must remain unanswered.

Certain investigators have, indeed, adhered to the latter viewpoint, holding that the period of prolonged physical rest secured during narcosis affords an opportunity in some way for the re-adjustment of a diffusely disturbed biochemical equilibrium, which has been productive of mental reflection in a psychotic state.



While in no way minimizing the beneficial influence of physical rest and a re-adjustment of disordered biochemical mechanisms upon any psychosis, other investigators, who have employed deep narcosis therapy, would place the greatest emphasis upon psychological re-adjustments, which they feel are made possible in this form of treatment. In supporting this theory, reference is made to the marked concentration of individual attention which is brought to bear upon the patient during and following treatment. With the treatment, there is the enforced reduction of the patient to a level of complete dependence upon others, as existent at the ante-natal and infantile levels of development, and the opportunity for unconscious emotional conflicts to find expression, with the relief of intrapsychic tension. The phase of emergence is considered to become a symbolic re-birth, during which the patient develops emotional bonds directed toward those upon whom his dependence has been enforced—in particular, the one physician who has conducted treatment and focused much personal attention upon him. This emotional bond, or transference, is then fostered by the physician in psychotherapeutic sessions, and utilized in the attempt to aid the patient to regain and maintain normal adjustments to reality.

Whatever the fundamental mechanisms underlying narcosis therapy may be, and despite our lack of accurate knowledge of them today, a sufficiently close temporal approximation is noted between treatment and response to warrant the assumption of a causal relationship, as opposed to merely coincidental improvement, or improvement associated with the normal course of recovery from the illness, and to sustain the feeling that, in the treatment of selected psychotic states, prolonged narcosis therapy has a definite value.

### *Conclusions*

Prolonged, or deep narcosis therapy in the treatment of selected psychotic states, the indications for its use, its potential dangers, a consideration of theoretical mechanisms involved, a comparison of results in a small series of cases, and a case report, including the essential details of technique employed, have been presented. The results obtained in this small series of patients closely parallels those reported for larger numbers by other investigators, and tends to confirm the value of this form of therapy in the treatment of a certain number of psychotic states.

## HISTORY OF THE RHODE ISLAND HOSPITAL\*

JOHN M. PETERS, M.D.  
PROVIDENCE, R. I.

In 1851, the great need of a general hospital for the sick and injured was brought to the attention of the public by the members of the Rhode Island Medical Society. Dr. Usher Parsons, then President of the Society, addressed a circular letter, also bearing the names of Drs. J. Mauran, Lewis L. Miller, Richmond Brownell, George Capron, S. A. Arnold and C. W. Fabyan, to the taxpayers of Providence. The response to this appeal was not encouraging. In the following year, a similar petition was sent to the City Council of Providence, bearing the same names together with those of many leading citizens not connected with the medical profession. The professional men offered their own services as physicians and surgeons gratis to help this cause. Hon. James Y. Smith, then Mayor of Providence, endorsed the plea and the matter was referred to a committee of the City Council to confer with the medical profession, but to no end and the matter, so far as is known, still remains in the hands of a committee.

The origin of the Hospital is due to the generosity of Moses Brown Ives, who died in 1857, leaving in his will \$50,000.00 to his brother, Robert Hale Ives, and his son, Thomas Poynton Ives, as Trustees; the money to be devoted to such objects of charity as they should select.

The real promoter of creating interest in building a hospital was Mr. Thomas Poynton Ives, who from his general interest in science took up the study of medicine at the College of Physicians and Surgeons in New York, completing a full course but not taking his degree as he did not intend to practice medicine. His interest in medicine and knowledge of what could be done to relieve human suffering led his father to form the above-mentioned trust.

In 1862, when home on a furlough from naval service, Mr. Ives called on Dr. J. W. C. Ely, who had acted as his Preceptor while studying medicine, and asked him to secure the signatures of the seven physicians who had previously circularized the

\*Read before the one hundred and twenty-fifth Annual Meeting of the Rhode Island Medical Society, Providence, June 3, 1936.



citizens, together with several others, to a petition to secure a charter for the establishment of a Hospital. In March, 1863, the Charter to incorporate the Rhode Island Hospital was secured from the Rhode Island Assembly.

Mr. Robert Hale Ives, one of the founders, active in securing funds and a liberal contributor himself, "was very insistent that the Hospital should bear the name of the State rather than the name of any particular founder, as he wished the citizens of the State to feel an interest in it and to understand that it was established for their common benefit."

The incorporators of the Hospital petitioned the City Council of Providence for the land owned by the city on which the Marine Hospital had stood since 1793. The city granted this petition with the understanding that at least \$75,000.00 should be subscribed. The Messrs. Ives immediately turned over to the fund the \$40,000.00 remaining from the Moses Brown Ives Trust Fund of \$50,000.00, having heretofore appropriated \$10,000.00 of said fund elsewhere.

The following gentlemen were appointed members of the Board of Trustees to carry on the establishment of the Rhode Island Hospital: President, Robert Hale Ives; Treasurer, Amos D. Smith; Secretary, John F. Tobey; Trustees: Amos N. Beckwith, Thomas Brown, Alexis Caswell, Thomas P. I. Goddard, Stephen Harris, Thomas P. Ives, Henry L. Kendall, Thomas P. Shepard, Amasa Sprague and Samuel Boyd Tobey.

From the Trustees a committee was appointed to secure subscriptions and to build the Hospital and it was agreed that out of the funds raised \$100,000.00 would be set aside as an endowment fund, the interest to be used for maintenance. With the \$40,000.00 as a nucleus the fund grew, the Trustees of the Moses Brown Ives Fund individually contributing \$25,000.00 and \$10,000.00, respectively. A building committee composed of Messrs. Alexis Caswell, Henry L. Kendall, Amos D. Smith, Robert H. Ives and Dr. Thomas P. Shepard as Chairman, in December, 1863, had prepared and printed a hundred copies of the committee's report, with the general plan of the Hospital and the various objects to be provided in the construction.

This report, with accompanying plans, was submitted to the members of the Rhode Island Medical Society for consideration and criticism and with

the request that the Society appoint a committee from its own organization to confer with the Trustees in regard to the subject. The Society appointed Drs. Isaac Ray, C. W. Parsons, J. H. Eldredge, J. J. Smith, G. L. Collins, J. W. C. Ely and S. Clapp.

The committee from the Medical Society duly considered the matter and submitted to the Trustees' Building Committee, through Dr. Isaac Ray, a report containing many valuable suggestions.

The members of the Building Committee spent many hours considering plans and it is to their foresight and that of the other Trustees that the present main structure, with its many additions, remains in such excellent condition as you find it today. During the construction of the building, "the Board ever kept in mind the principal objects to be secured: first the interior arrangement best adapted to the wants of a first class Hospital which was bound to expand as time went on; secondly, a solid and enduring structure; thirdly, the most pleasing architectural effect compatible with the economy which they felt it incumbent upon them to practice." Because these thoughts were ever kept in mind, the Hospital today has its original buildings almost intact.

The Building Committee visited hospitals in various cities, including New York, Boston, Philadelphia and even abroad and finally engaged as architects, Mr. Samuel Sloan of Philadelphia to plan the interior and Mr. A. C. Morse of Providence the exterior of the building.

Reference is here made to a notation from the records of the Rhode Island Medical Society that "at a meeting June 3rd, 1863 (seventy-three years ago today) the fellows of the Rhode Island Medical Society, in acknowledging an invitation to be present at a meeting of the Rhode Island Hospital Corporation, promised to the incorporators all the aid and influence which they can furnish in its behalf as physicians and citizens."

Quoting again from the records of the Society, in 1868 upon the completion of the building the Society voted "that all the books, instruments and apparatus belonging to the Society and now in the hands of the Cabinet Keepers and Librarians; also any preparations belonging to the Society, be and they hereby are, presented to the Rhode Island Hospital, provided, the members of this society shall be permitted to have free use of them when desired, subject to the rules of the hospital."

The Board of Trustees of the Rhode Island Hospital invited the Society to hold its meetings in the Library Hall of the Hospital and the Society's fifty-eighth annual meeting was held there on June 9th, 1869. The Society met at the Hospital until the necessity for more space by the Hospital made it imperative for them to find other quarters, but since then the Society has been entertained by the Hospital at clinics and meetings on several occasions, both in the Main Building and at the Crawford Allen Memorial. When the Society erected its own Medical Library Building, the Trustees of the Rhode Island Hospital, through generous individual gifts, made it possible for this Auditorium to be completed and furnished. A bronze tablet on one of the walls of the Medical Library indicates the gift.

In October, 1868, the first patient was admitted to the Hospital and since then the doors have never been closed. Up to September 30th, 1935, two hundred and eighty-seven thousand, eighteen (287,018) patients have been admitted.

#### *Grounds*

The land given by the City of Providence covered an area of about twelve acres and since then, through gifts from individuals and groups of public-spirited citizens, including the Trustees themselves, the land now owned by the Hospital is approximately twenty-two acres, the grounds extending from Eddy Street to Plain Street, between Dudley and Lockwood Streets.

On the original land stood the Marine Hospital, a wooden building in which sailors were treated and which was used mostly, so far as can be learned, for the treatment of contagious diseases such as small pox, typhus and cholera.

When the building plans had been accepted, the committee secured the services of S. B. Cushing to make final surveys and to fix the level of the hill on which the Hospital was to be built. The location was an ideal one from every angle in caring for the sick, being within sight of and fifty-five feet above the tide water of the Providence River with its cooling breezes in summer and at all times with air in motion to help the ventilating system of all the buildings. The development of the grounds to their present beauty is due to the efforts and interest of an early Trustee, Henry G. Russell, Esq. Mr. Russell and his wife endowed this work to the amount of \$35,000.00 and later Mrs. Russell built and endowed the present greenhouse on the Hospital grounds.

It has been told, that in the early days the gates into the Hospital grounds were promptly closed every night at ten o'clock by the watchman who lived in a small building near the entrance. In order to enter after that hour it was necessary to arouse him by ringing a bell, which sometimes was rather difficult, he being a very heavy sleeper.

#### *Staff*

At the opening of the Hospital in October, 1869, a Consulting Staff of physicians and surgeons, numbering fourteen, was appointed, being made up of men whose names were then prominent in the medical world and in the records of the State and City Medical Societies.

An Active Staff was likewise appointed, fourteen in number, which included visiting physicians and surgeons, a group of younger men who had been in government service, both in the Army and Navy. Their war experience was of great help to them in performing their duties at the Hospital and the discipline acquired by them in the government service was of especial value to the Hospital authorities under whom they worked.

Today the work of the Hospital is carried on by an Active Staff in the House numbering one hundred and thirty-one (131) medical men, exclusive of interns, and eighty-eight (88) medical men in the Out-Patient Department service. There are also fifty (50) Consultants and twenty-five (25) men on the Courtesy Staff, making a total of three hundred and twenty-nine (329).

Referring to Interns, it is interesting to note that at the opening of the Hospital two were appointed, one to serve the medical department, the other the surgical and the department of the Eye and Ear. Now there are thirty-five interns on duty, the twenty-four regulars serving on what is known as "mixed service."

In the September, 1935, annual report, the total number of interns who had served the Hospital totalled four hundred and two (402), many of whom have practiced in Rhode Island.

Today, the Rhode Island Medical Society has on its membership roll two men, well known to you all, Dr. Charles H. Leonard, who served the Hospital in 1874 as Librarian and later as Admitting Physician for seven years, and Dr. Charles V. Chapin, who served as Pathologist in 1883. Both are also at present on the Consulting Staff of the Hospital.





THE JOHN M. PETERS HOUSE WITH THE LOFTY TOWERS OF THE  
RHODE ISLAND HOSPITAL IN THE BACKGROUND

Reprinted from the sixty-ninth Annual Report through courtesy of  
the Rhode Island Hospital

#### *Admittance*

In the early days, for admittance to the Hospital it was necessary for the attending physician to write and address a letter to the Admitting Physician, recommending the patient's admission. This letter had to be carried either by the patient or a relative to the Admitting Physician's private office. Today telephone arrangements between attending and admitting physicians admit the patient.

#### *Telephone*

Not until 1879 did the Hospital have telephone service; then a five party line was installed under the stairs in a closet near the hot water boiler; later, in 1880, a private line was installed; then, in 1897, intercommunicating lines through the Hospital buildings. Now a large switch board in the Main Building handles the thousands of incoming

and outgoing calls. Today there are ten trunk lines, two hundred and twenty extensions and six operators handling this work in the Main Building, and at the Jane Brown Memorial six trunk lines, one hundred and twenty extensions and two operators, all exclusive of the Crawford Allen Memorial. At the present time a new system is being installed to handle this work more efficiently and economically.

#### *Electric Lights*

Until the year 1896, there were no electric lights in the building and gas was depended on entirely. At night, the nurses walked about in the wards using kerosene lanterns and in the operating room and accident room Welsbach mantels were used. The Hospital installed its own private electric plant in 1896; two dynamos were built at first and later a third.



### *Departments*

When the Hospital was opened in 1868, there were three departments, Medical, Surgical and the Eye and Ear, the last named in charge of Dr. Horace G. Miller. Since then fifteen departments and seventeen special clinics have been opened, always upon the recommendation of the staff, with the approval of members of the department which would be affected.

The members of the Medical Staff have been consulted on plans for new buildings and equipments and an effort has always been made to honor the requisitions of the staff for instruments, appliances and any other assistance required.

The relationship between the Trustees and the staff has been friendly and so far as I know no particular friction has ever arisen between the two bodies, the staff recognizing the authority of the Trustees and the Trustees always considerate of the staff. There have been very few "cliques" or factions among the doctors who have worked with the Trustees openly and above board. The promotion of men on the staff has depended on the length of service, faithfulness and ability in performing their duties at the Hospital. All members of the staff and all administrative appointments have been made annually. In recent years the medical men connected with the several departments have held clinical and business meetings and have in most departments recommended to the Trustees the election or appointment of Physicians or Surgeons-in-Chief.

### *Maintenance*

In the Annual Report the work done during the preceding year is described in detail, and frank, open appeals are made for money to cover the cost of carrying on the work and for the development and expansion of new phases of medicine and surgery.

One important source of income was and is now from the establishment of the Rhode Island Hospital Trust Company by the same group of men who organized the Hospital. The hope was to furnish funds from the earnings of the Trust Company and this hope has proven a wise and profitable investment. At first the bank paid to the Hospital one-third of its earnings above 6%, but later, in 1880, by mutual agreement, the bank gave to the Hospital one hundred shares of its stock, valued at \$1,000 per share, and since then the number of shares has increased by purchases, gifts, bequests and stock dividends.

### *Training School for Nurses*

Up to 1880, the nursing in the Hospital was done by experienced nurses and orderlies. The question was raised in 1875 of starting a Training School for Nurses. The matter was discussed at length and before establishing such a school, graduate nurses from other hospitals were employed to actually determine their value. In 1882, the Rhode Island Hospital Training School for Nurses was opened and up to May 13th, 1936, one thousand five hundred and ninety-seven (1,597) nurses have been graduated. The training has been broadened to cover many phases of the work and with the opportunities offered, the school has become an important factor to the Hospital and to the community. It was the twentieth of such schools opened in the United States.

### *Emergencies*

The Hospital has been able to open its doors to meet all emergencies, the first such call resulting from the accident at the Richmond Switch below Kingston, R. I., when twenty-six people were injured, fourteen of whom were placed on the train and sent to Providence where they were transferred to the Hospital for treatment and later six others were sent up. During the Spanish and World Wars the Hospital Staff and many of its nurses volunteered their services and Naval Base Hospital No. 4 during the World War was composed mostly of Rhode Island Hospital physicians, surgeons and graduate nurses. The Hospital doors were also opened to the victims of the flue epidemic in 1918 and many of the medical staff volunteered their services at the time of the Larchmont and Halifax disasters.

### *Apothecary*

From the beginning there has been an apothecary shop in charge of a pharmacist. Many of you will recall John E. Groff, who served the Hospital in that capacity for over forty years and proved himself a very valuable officer.

### *Surgery*

When the Hospital was opened, the knowledge of surgery was very limited. Antisepsis was first introduced in the Rhode Island Hospital in a tentative way in the eighties and was rather under the protest of the older surgeons, especially those who had served in the Civil War. The discovery of antisepsis and asepsis changed the whole picture and today we know that practically any part of the

body, the head, chest, abdomen and extremities can be operated upon safely when done by capable men with proper safeguards. The fatalities resulting from the opening of the abdomen were so great in the early days that the operation was practically tabooed in this Hospital.

Dr. George W. Porter, who had been an intern at the Woman's Hospital in New York, came to Providence and decided to become a specialist in Gynecology. Naturally he was anxious to do abdominal operations but the prejudice among some of the Trustees and some of the Staff against having the operation performed was so great, because of the high mortality rate, then thought due to the infected air in the operating room and wards, that it was refused until 1885 when a small isolated building entirely separated from the Main Hospital was built by Dr. John W. Mitchell and his friends. This building, surrounded by fresh air and exposed to the sun, a few years later was abandoned when through laboratory tests it became known that the great danger of infection was from the hands of the surgeons and their instruments that came in contact with the wound and not especially from the atmosphere. All operations have since has been done in the operating rooms.

#### *Laboratory*

In the early history of the Hospital, practically the only work done in the Laboratory was the examination of urine and the gross examination of autopsy specimens, as the space and facilities offered were very limited. The first work done on a scientific basis was in 1894, when Dr. Jay Perkins was appointed to the Laboratory and brought a microscope with oil immersion lens and began to examine sputum for tubercle bacilli. He acted not only as a Pathologist, but as a Microscopist and Bacteriologist, examining surgical specimens and also working in the private laboratory of Dr. Gardner T. Swarts.

The present Laboratory was opened in 1900, on the upper floor of the southwest pavilion, and placed in charge of Dr. Frank T. Fulton. The space was planned by Professor Hermon C. Bumpus of Brown University and a Trustee of the Hospital, and through the gift of Mrs. Gustav Radeke, the Laboratory was fully equipped in memory of her husband. At its opening the following men addressed the meeting: Dr. W. F. Councilman of Harvard Medical School, Dr. James W. C. Ely,

one of the original Staff of the Hospital, and Dr. G. Alder Blumer.

The importance of bacteriology, pathology and allied sciences is appreciated more every day and the dependence on its findings has become of the greatest importance in modern medicine and surgery.

#### *X-Ray*

The first X-Ray machine was brought to the Hospital by Professor Hermon C. Bumpus of Brown University in 1896. After operating it for a while he instructed the chief engineer of the Hospital, Mr. William Amos, how to use it and the work was then done under Mr. Amos' direction. Shortly after 1900, when Dr. Frank T. Fulton was appointed Pathologist, the X-Ray work was placed under his charge with Dr. William B. Cutts as assistant. In 1909 the X-Ray Department was created, with Dr. Murray S. Danforth in charge.

#### *Radium*

Through the generosity of friends a fund has been established which permits the purchase of Radium for use in the Hospital as an agent in treating malignant conditions as well as in Gynecological Research work. At present 466 milligrams of Radium are available.

#### *Medical Social Service*

Medical Social Service was unheard of in the early history of the Hospital. Its inception was due to Richard Cabot of the Massachusetts General Hospital in Boston. In 1911, the service was started at the Rhode Island Hospital and in 1914 placed under the guidance of a committee composed of several ladies in the community, several Trustees and the Superintendent of the Hospital. Its value has been appreciated from the beginning.

#### *Dental Service*

Ever since 1891, when a dentist was appointed to care for patients with fractured jaws and other serious and painful dental conditions, the work has continued and expanded until now there is a Dental Service in the House, with a Dental Intern. In the O. P. D. there are two dental clinics for patients over twelve years of age, one for extraction and one for filling and treating certain conditions and cleaning. The Joseph Samuels Dental Clinic for Children, the gift of Colonel Joseph Samuels and endowed by him, cares for children under twelve years of age.



It has only been possible in the half hour allotted me to give you but a brief outline of the physical, medical and surgical growth of the Hospital for the past sixty-eight years.

Quoting from the 1883 annual report: "The founders of this Hospital intended that its advantages should be open to all sorts and conditions of people through the whole State. The only exceptions were such as were afflicted with contagious disease or such as could not be relieved. They designed the institution to be such that no part of our commonwealth nor any conceivable class should be excluded from sympathy with it. You cannot tell a Republican from a Democrat by his disease or the treatment of it. They are all alike when they are sick or wounded. Wonderful is the unity under the potion or the knife."

So far as I know all members of the Rhode Island Hospital's Staff have been members of the Rhode Island Medical Society. Only with the help, advice and splendid co-operation of the members of the Rhode Island Medical Society has it been possible for the Hospital to carry out the ideas and plans of the founders and to you the Rhode Island Hospital is deeply indebted.

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#### AN ADDRESS BY THE GOVERNOR\*

THEODORE FRANCIS GREEN

It is the custom of the Rhode Island Medical Society, as I am informed, to hold its Fall quarterly meeting in one or another of the institutions of the State so that you, its members, may observe for yourselves what is taking place in the way of progress. Your meeting here today is especially timely since it will enable you to appreciate far better than you can by any mere description just what the State is now providing for its wards, in whose welfare you as physicians are particularly interested. I am always pleased to meet my friends of the medical profession, but this afternoon I am gratified to be afforded the opportunity of describing briefly what I conceive to be the real significance of the many new buildings which are being erected round about us, and which you will shortly inspect for yourselves.

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\*Delivered at the Quarterly Meeting of the Rhode Island Medical Society, which was held at the State Hospital for Mental Diseases, at Howard, September 3, 1936, by invitation of The State Department of Public Welfare.

I think it is no exaggeration to say that Rhode Island is entering upon a new era in its care of those committed to its charge. Thanks to the assistance of the Federal Government and to the generosity of the people of the State as expressed by their votes on the sixth of August of last year, we are carrying out a program of improvement in all of our State institutions. I need not tell you how much this improvement is needed, for as physicians you have been in daily contact with the individuals who are to be the beneficiaries of it.

No doubt you recall the famous saying of Hippocrates about medicine that "where there is love of man there also is love of the Art." And it is just because you physicians have a real love of your fellow-men, because you are interested in them as human beings, that from time immemorial you have been unceasing in your efforts to remove or at least to alleviate human suffering. For you pain and misfortune have been an ever present challenge and you have always endeavored to meet that challenge to the best of your ability. I like to think that this same spirit of humanism which has always sustained you in your work is finding visible embodiment in these many buildings which are rising round about us here, and also at the other institutions of the State. An aroused social consciousness is at last becoming aware of its duties and is bent upon supplying proper care for the aged and the infirm, the mentally and physically sick, the mentally defective, the delinquent and those who have been neglected or abandoned. I am sure that no right thinking man or woman who understands our program can do other than approve of it. It has been too long delayed. To be sure, we are spending a very large sum of money, but who can say that we are not spending it for a purpose both noble and ennobling? I am sure that when these fine buildings have been completed and put into operation, the citizens of Rhode Island will have reason to be proud of the fact that our less fortunate brethren are receiving the care which is their due.

May I impress upon you this fact—that the depression which inflicted so many cruel wounds, and left few of us wholly unscathed, has been productive also of some moral gains? Is it not true that the sight of suffering has enlarged our sympathies, chastened our hearts, and opened our ears to the call of brotherhood? Were we in prosperous times a little too much concerned with our own affairs to trouble ourselves about the needs of our



less fortunate neighbors? I do not mean that humanitarian feeling was formerly lacking, but rather that as a result of the depression there has been an extension of its scope. At any rate, it would seem to be true that during the past few years there has been a growth of that feeling of social solidarity which binds one human being to another and made all of us conscious of the duty of helpfulness. And since we can thank the depression for the gift of these buildings and the improved service they will make possible, we can say that in this one respect at any rate the depression has been productive of social gain.

Thoughtless critics have said that this building program now in progress at our various state institutions is extravagant and unnecessary. To this kind of criticism there is an easy answer. The buildings which are being erected are in kind and number only such as the experience of wise administrators proves to be necessary for the rendering of adequate and efficient service in the various branches of institutional work. We are not setting up in Rhode Island any untried scheme of building. We are but following the lead of other progressive states. As you physicians know full well, there is pretty general agreement among experts in this matter. Therefore, the people of this State need have no fear that we are proceeding with a building program which is untried or visionary. We are carrying forward our work in accord with what the most able architects and hospital administrators have elsewhere found to be the best and our policy is to expend money only for those things which are necessary.

Let us consider for a moment this State Hospital for Mental Diseases where we are meeting. As being our largest institution it requires and is receiving the most numerous additions and improvements. The money cost is large, and yet it will supply no more than the commonly accepted necessities for an institution of this kind. Our present old hospital buildings embody the medical ideas of a bygone generation. Not so many years ago a mental hospital was looked upon as a custodial institution—a place of sombre hopelessness where people were locked up till death should free them. This defeatist attitude has given place to the modern view which regards mental disease as an increasingly important department within the realm of scientific medicine. Hence modern physicians and the public in general demand nowadays not insane asylums, but rather hospitals for mental diseases.

For almost twenty years I was a trustee of Butler Hospital and in that progressive institution learned that mental diseases like bodily diseases can often be cured and often alleviated. In other words, there is a very healthy movement to bring psychiatry back into the fold of general medicine which it never should have abandoned. This is the reason that buildings are more numerous and more costly than once they were. Indeed, I should be willing to defend the thesis that you may derive a fair idea of a state's cultural level from its attitude toward its mentally sick. If so this is the beginning of a new era in the state's cultural life also.

Among the large number of buildings being erected on these hospital grounds there is one of which we are especially proud and concerning which I should like to say a few words. Near the New London turnpike you will notice the building to be known as the Psychiatric Clinic designed for the treatment of patients with acute and curable mental disorders. There are some but not many such buildings elsewhere and in this regard our State is in the vanguard of progress. As physicians you can easily appreciate what a splendid thing this Clinic is going to be. Many people, I suppose, still consider mental disease to be a hopeless thing, and yet it is heartening to know that such clinics as we are building discharge as many as 55% of their patients within a year. The Psychiatric Clinic is designed to give the mentally sick patient the best of medical treatment and thus to afford him every opportunity to regain his health.

27% of first admissions to the Mental Hospital are over 60 years of age. It is to be expected that in such a group the incidence of medical and surgical diseases will be high, as indeed it is. If you add to these burdens of the aged those of the younger patients in the hospital, it is easy to appreciate that a hospital as large as this should have a medical and surgical division. Accordingly, a medical and surgical building is being erected, and of such a kind as to render possible all the ministrations of a well equipped general hospital for those suffering from mental disease also.

If time permitted I might go on to describe for you the building for the tuberculous, the pathological laboratory, the new general wards which will remove a great deal of the present over-crowding, the auditorium and chapel, the physicians' cottages, the staff house, and the administration building. All of these, however, you may see for yourself. To-

gether they will change this institution from one almost the most deplorable of its kind in the country, into one of the very best.

For many years the State Sanatorium at Wallum Lake has fulfilled its beneficent mission, as hundreds of patients will testify. As the population of the State expanded, so did the demands upon the Sanatorium. The result was that while the number of beds was largely increased, the buildings were not and overcrowding resulted. The new buildings now being erected at Wallum Lake will remedy this state of affairs so that Rhode Island will be in possession of a modern sanatorium capable of caring for about 550 adults and about 75 children.

You recall how Virgil speaks of *tristis senectus* (sad old age). Too often it is true that old age is sad. But at the State Infirmary something is being done to make old age and its attendant ills more endurable. A modern medical and surgical building is being erected there together with additions to the wards, an employees' dormitory, and a modern laundry and machine-shop.

At the Exeter School for the feeble-minded a new hospital, new dormitory for inmates, and employees' quarters have already been built.

At the Sockanosset School for boys near here there are now being built a new gymnasium, swimming pool and auditorium, and a new administration and school building.

The Soldiers' Home has been renovated and improved as to furnishings and equipment.

At the State Prison there have been renovations of buildings and a program of industrial guidance has been instituted to rehabilitate prisoners and to remove the pernicious dangers of idleness.

At the State Home and School there is being carried out a renovation of buildings and additions to equipment and a new athletic field and playground are nearing completion.

And thus we are well on our way towards bringing these state institutions for the wards of the State up to the standards of modern progressive states. Although I have spoken merely of material improvements corresponding reorganization of the work carried on is also being undertaken. Our care has been for those unfortunates and underprivileged who cannot care for themselves. It may not be appreciated generally, but you physicians I know appreciate it and comprehend its significance. The State counts on your continuing interest, help and counsel.

## A CHILDREN'S HOSPITAL FOR NEUROLOGICAL AND BEHAVIOR DISORDERS\*

By CHARLES BRADLEY, M.D.  
EAST PROVIDENCE, R. I.

Dr. Bradley points out that the majority of general and children's hospitals, designed primarily for bed patients with acute disorders, are not prepared to go beyond the stage of diagnosis for children with many chronic neurologic complaints and make no pretense of dealing satisfactorily with active ambulatory children whose behavior demands prolonged treatment. A very limited number of psychiatric hospitals have during the past ten years done pioneer service by establishing wards for problem children. However, no hospital planned and equipped especially for the care of children with neurologic and behavior disorders existed until the Emma Pendleton Bradley Home was opened in 1931 at East Providence, R. I. In this paper, the author deals briefly with the experiences encountered during the first five years' operation of this unique institution. He says that in scanning the first five years' work of the Emma Pendleton Bradley Home, one is attracted by two or three other salient points: This experience has lent no support to the theoretical criticism that it is unwise to treat together in a single group children with organic neurologic disorders and those with functional behavior problems only. Neither by imitation nor by irritation have members of either group seriously interfered with their own treatment of that of others. Moreover, the practical convenience of treating together all those patients with obviously similar needs for prolonged therapy, schooling and social development outweighs most theoretical objections to so doing. Considering the fact that most of the children who were admitted to the hospital represented the more severe types of their particular disorders, it is encouraging that therapeutic results in general have been distinctly favorable. The beneficial results of a carefully planned environment have been obvious, particularly in the field of behavior disorders. It seems significant that in actually developing this environment many more definite and workable suggestions were received from individuals intimately familiar with healthy children in schools, camps and the like from those whose training and experience came only from the world of medicine. The implication that many physicians and nurses lack familiarity with the everyday life of active children has led to including prolonged daily contacts with the children in the psychiatric training of all who come to the Emma Pendleton Bradley Home for professional experience.

\*Abstract of a paper read before the Section on Nervous and Mental Diseases at the Eighty-seventh Annual Session of the American Medical Association, Kansas City, Mo., May 15, 1936, and printed in the J. A. M. A., 107, 9, p. 650, August 29, 1936.



## THE RHODE ISLAND MEDICAL JOURNAL

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## THE RHODE ISLAND HOSPITAL A PUBLIC SERVICE INSTITUTION

On reading the "History of the Rhode Island Hospital" by Dr. John M. Peters, which appears in this issue of the JOURNAL one realizes that from small beginnings there has been developed in Providence a highly specialized modern organization which may well be classed as the State's Public Service Institution No. 1. A major part of this development has taken place under Doctor Peters' leadership and is now being continued under Dr. Rice. The hospital's daily ministrations to citizens of the state make its value greatly appreciated by a large portion of the public and yet it is probable that a great many do not fully realize the various beneficent functions that are coordinated in its operation.

The primary service to the public is of course the care of the sick poor. A glance at recent records will show how the volume of the work has increased and how the financial depression has strained the resources of the hospital. That the quality of this work in the wards and operating rooms has continually improved and is continuously improving is a matter of common knowledge to the members of the profession.

As a corollary to this function of caring for the sick poor may be added that of providing expert and specialized care of the public generally, both rich and poor. This is dependent on the opportunities which are presented for the development of a high grade of technical skill on the part of the members of the staff, a thing which is impossible for the doctor who is not practicing in a well equipped modern hospital which cares for a large number of patients.

Thus a third major function of the hospital becomes apparent; that of the training of physicians. Not only the house staff serving their two years

internships but also all members of the visiting staff are, in their daily duties when on service, partaking in a continuous course of graduate study which is essential to the maintenance of progressive efficiency. This is a hospital function less appreciated by the public who are prone to underestimate the value of staff membership to the doctor in private practice. Membership in the staff of the Rhode Island Hospital is, and has always been, open to any well trained physician whose personal and professional record is unblemished and who is willing to give freely of his time and energy in friendly cooperation with his colleagues in doing the hospital's work. Furthermore the training of practitioners is not confined to the staff. Meetings and ward rounds occur weekly, at which the profession generally is welcome, and the hospital is constantly working out in its wards difficult clinical problems presented by patients referred by outside practitioners to whom a careful report is given when the patient is discharged.

In addition to the training of physicians, a fourth and equally important activity of the hospital must be considered—the education of nurses. The Rhode Island Hospital is justly proud of its Training School for Nurses. A constant supply of carefully selected and technically expert young women is made available for the needs of the community in the fields of private duty, public health and industrial nursing. In addition may be mentioned the training of nursery maids, orderlies, and technical assistants of various sorts.

Finally we come to the function of research, contributions to medical knowledge. While it is true that the absence of a medical school, with its departments combining teaching and research as major functions and coordinated with the hospital organization makes for a great reduction in the amount of clinical and laboratory investigation; still in practically every department members of the staff are active in this field and creditable contributions are made to medical literature every year.

Rhode Island has, therefore, in the hospital which bears its name, an institution which is progressively and creditably carrying out the major functions of the modern general hospital for acute diseases. Public pride in this institution is well justified and public appreciation of its value is to be cultivated for it depends for the continuation of its work on public support.

A. M. B.



## QUARTERLY MEETING

At the November meeting of the House of Delegates of the Rhode Island Medical Society, will be considered the question of changing the number of meetings held during the year. For almost ninety years the Society has met every three months. It is quite vital that nothing be done about this matter without careful, thoughtful consideration. In this day of specialization the number of societies to which a doctor belongs is increasing almost yearly. There is a great temptation to go only to those meetings which have primarily to do with the one thing which interests us most. It has been pointed out in the meetings of the American Medical Association that loyalty to, first the County Society, and second the State Society, should come before anything else.

We have been circularized constantly over the last two years concerning the inroads that are being attempted into the power and dignity of the medical profession. The threat of state medicine, of irregular practitioners and of panel medicine can only be met by everyone's undivided loyalty to his state and local medical society. The question to consider in making any change in the number of meetings held during the year by the Rhode Island Medical Society is whether or not we are weakening or strengthening the bonds of a firm union. Would we lose the interest of the members by having it only twice a year or would it serve to bring them out in greater numbers? Each local Society should discuss the question with its delegates so that he may go to the meeting with a comprehensive idea of the sentiments of his society.

—G. L. Y.

## UNDERSTANDING THE DRINKER

The problems of the alcoholic are not as well understood as they might be by the medical profession. In an enlightening article, Charles H. Durfee (*Mental Hygiene*, 20:11, Jan. 1936) explains that each case is an individual problem; he believes that alcoholism in itself is not inherited, but that there may be inherited a constitution which finds it difficult to resist alcoholic stimulation. Durfee attacks the problem to see what can be done fundamentally to overcome it. Some psychopathic individuals may not have the regenerative capacity necessary to re-

education. In others "alcoholism may be a symptom of a serious deviation from mental health, which may yield only to a far-reaching exploration of the unconscious through psychoanalysis." In another class, many drinkers abuse alcohol as an expression of some correctible maladjustment in personality, circumstance or both. It is a problem for the psychologist and educator—a question of intimate understanding and readjustment. The personality of the therapist plays an incisive rôle. Authoritarian measures are used as little as possible and the treatment is made as easy as possible for the patient. As Durfee expresses it, the cure comes "through a slow growth or natural evolution which is fostered by an atmosphere of freedom rather than of restriction, of voluntary co-operation rather than of submission to authority." It is an extremely interesting process of rehabilitation.

—M. W. T.

## WARNING

Because the incidence of Diphtheria has diminished during the last few years, the medical profession should not lose sight of the fact that a return of the disease can be looked for if the prophylactic treatment is not continued. Parents are apt to lull themselves into a state of fancied security because they have not heard of any cases of Diphtheria recently.

Health authorities look forward to the time when immunity to this disease will be one of the requirements for entering school, as vaccination is now. With the opening of the fall term, it is an opportune time for family physicians to call the attention of parents to the need of prophylaxis. This treatment should be in the hands of the family physician just as much as vaccination. With the co-operation of the physician and parents, the splendid record that the state now possesses with regard to Diphtheria can go on indefinitely.

In the cities where the Health Department has conducted the clinics, a growing interest has been shown, and it is less difficult now to secure the endorsement of the parents than in the beginning. With this education of the public the medical advisor can take up the work and feel that it is his duty and responsibility to see that Diphtheria never again will be a menace to childhood.

—E. V. M.

## RHODE ISLAND MEDICAL SOCIETY

### Minutes of the Three Hundred and Fifty-fifth Regular Meeting

The Regular Quarterly Meeting of the Rhode Island Medical Society was held at the State Hospital for Mental Diseases at Howard, September 3, 1936, at 4 P. M., on invitation of the State Department of Public Welfare.

The meeting was called to order by the President, Dr. John R. Donley. Following the usual custom, the reading of the records of the Annual Meeting was omitted, as they had already been printed in the JOURNAL. An Address of Welcome was given by Dr. Seth F. H. Howes, Superintendent of the State Hospital for Mental Diseases. The Report of the Delegate to the American Medical Association was read by Dr. Guy W. Wells.

The following papers were then read:

1. "The History of the Treatment of the Insane in Rhode Island" by Dr. Arthur H. Harrington, Superintendent Emeritus of the State Hospital. Dr. Harrington's address was illustrated by many lantern slides which showed in an interesting way the progress in treatment of mental diseases from the earliest days down to the termination of his active service in 1927.

2. "Some Problems in the Neuropathology of Mental Disease" by Dr. Rawser P. Crank, Superintendent of the State Infirmary.

3. "Bedside Manners and Psychiatry" by Dr. Harold W. Williams, Clinical Director of the State Hospital.

An address, which is printed in this number of the JOURNAL, was delivered by His Excellency, Governor Theodore Francis Green. On motion of Dr. J. W. Mowry, seconded by Dr. C. W. Skelton, it was voted that the thanks of the Society be extended to the State Department of Public Welfare for its kindness in arranging this meeting. The meeting was then adjourned.

A collation was served, after which members visited the many buildings now being constructed.

Respectfully submitted,

GUY W. WELLS, *Secretary*

### Report of the Delegate to the American Medical Association

The Kansas City Convention of the American Medical Association was a success from nearly every point of view. The convention hall was suffi-

ciently large to afford plenty of room for all the various sections and for the unusually large number of scientific and commercial exhibits. This year a definite tendency was noted on the part of the committee to choose papers by authors who also had a scientific exhibit. This plan will probably be followed more closely in the future since it received a great deal of favorable comment.

The one sad note of the Convention was the illness of President-elect Mason who has recently died. The members of the House of Delegates were kept informed of his condition throughout the session. It was with a feeling of deep respect that Dr. Mason was installed as President in absentia.

The Speaker, Dr. Van Etten, in his opening address urged the members to take not only an active interest, but a leadership in governmental matters that involved the promotion of public health. Dr. Van Etten pointed out the sympathetic reception the public gives a doctor on health matters, when he has become familiar with the subject. It was further suggested that delegates study and interpret the sentiment of the constituent societies to insure a progressive and constructive action by the Association.

President McLester gave a stimulating address which should be read by all. Brief quotations here will show the essence of his excellent paper. "The thing which above all others interests medical men in America today is the preservation, unimpaired, of established methods of practice. Methods by which American medicine has reached its present preeminent position." Again, "There have been times during the past two years when it appeared that disaster was just ahead, when government, in its effort to extend social reform, appeared ready to reach out for the control of medical practice, and those who are familiar with the results of such governmental control in other countries contemplated this step with grave misgivings. But the leadership exercised by you over a united medical profession and its influence on public opinion were wise and effective and no such change was accomplished."

Dr. Olin West reported more than 103,000 members on the Association rolls, the greatest number ever attained.

The tremendous increase in the amount of work done in the home office has necessitated increasing the amount of office space. This can be done with the expenditure of about \$450,000.

## THE HOUSE OF DELEGATES

1. Reaffirmed the principle that all hospitals be urged to enforce the provisions that staff members be members of their county medical societies.

2. Disapproved publication of specialists' names in directories sponsored by the lay press.

3. The attention of the House was called to the fact that the Social Security Act is now a law and that County and State Societies should co-operate to secure its proper enforcement lest the Federal Government take over the management.

4. The House was also reminded that the American Federation of Labor is opposed to sickness insurance and to contract practice.

5. The raising of qualifications for admission to Medical Schools with particular attention to the character and personality of the applicant was endorsed.

6. A resolution was adopted to appoint a committee to recommend changes necessary in the By-Laws to accord suitable recognition to Fellows of the Association who have rendered distinguished service in the science of medicine.

7. The Association approved the legislation requiring physicians to report gunshot and other wounds, provided every other person having such knowledge of wounds be required to do so. The Association condemned the performance of operations designed to alter one's identity.

8. The birth control problem was given considerable study. It was recommended that the committee be continued. The practice of lay bodies disseminating contraceptive information to the public was condemned. The proposal of the committee to develop standards for judging contraceptive material was disapproved.

9. The continuation of medical units in the Reserve Officers' Training Corps was requested.

10. The need of a uniform State Narcotic Law, as proposed by the American Medical Association, was stressed.

11. The House adopted a resolution criticising any proposal of the Federal Government to lend money through its agencies to individuals for the purchase of stock in co-operative hospitals. It was felt the Elk City project was not operating in accordance with the Medical Ethics of the American Medical Association. In fact, the institution is being managed by a physician who was expelled from his county society.

The financial state of the American Medical Association remains unimpaired as it has in the

past. The Journal of the Association has been improved and is financially successful. Many of the other publications represent losses in money but are too valuable to the science of medicine to discontinue. *Hygeia* represents one such publication. It is the only Journal of its kind to which the public can turn for authoritative information and should be continued. An occasional word from the physician to his patients would greatly increase its circulation.

The following officers were elected for the ensuing year:

President: Dr. J. Tate Mason.

President-elect: Dr. J. H. J. Upham.

Vice-President: Dr. Charles Gordon Heyd.

Secretary and General Manager: Dr. Olin West.

Treasurer: Dr. Herman L. Kretschmer.

Speaker of the House: Dr. Nathan B. Van Etten.

Vice Speaker of the House: Dr. H. H. Shoulders.

Re-elected Trustee: Dr. Thomas C. Cullen.

The next annual meeting will be held in Atlantic City, June 7-11, 1937.

Respectfully submitted,

GUY W. WELLS, M.D.,

*Delegate to the*

*American Medical Association*

## Rhode Island Hospital Notes

Dr. William W. Teahan, of Holyoke, Mass., and the University of Pennsylvania, began his internship on August 15th.

Dr. D. William J. Bell, of Providence, and McGill University, began his internship on September 15th.

Dr. John Egoville finished his Pathological residency on Sept. 1st and will practice Industrial Surgery in Philadelphia.

Dr. Clarence Newel, former Pathological resident at the R. I. Hospital, has established a Pathological Laboratory in Fresno, California.

Dr. Robert Williams, former Resident Pathologist, on Sept. 1st became Assistant Pathologist at the R. I. Hospital.

Dr. Russell Bowman is at present in Europe, and will attend the International Cancer Conference.

Dr. David Freedman began on Sept. 14th one year's internship on the Orthopedic and Fracture Service.



### Memorial Hospital Fall Clinic Day

Preparations are being made for the Alumni Clinic to be held at the Memorial Hospital on November 4th. This will be a full day's clinic, 9:00 A. M. to 5:30 P. M. with luncheon at noon. Notices will be sent out in advance with the program to all the doctors in Rhode Island and also a follow-up return card. The program will be made up to include all types of specialties but particularly to take care of the average practitioner.

For the surgical side, Dr. C. F. Dixon of the Mayo Clinic will speak on "Management of Carcinoma of the Colon." From the medical standpoint, Drs. Stroud, Bockus, Dunn and others from the Graduate School of the University of Pennsylvania will speak. Dr. Greenberg from Dr. Johansen's Clinic of Gothenberg, Sweden, will present motion pictures for the first time in America of a new method of pin operation in fractured hips.

The morning clinics will be conducted by the different members of the Staff—Dr. F. V. Hussey and his associates will demonstrate some original gall bladder work with motion pictures—Dr. Holt, Dr. Kelly and associates will present the Ramstedt Operation with motion pictures. Dr. Kenney and associates will present further studies on Larostidin treatment as compared with Sippy Diet in gastric ulcer and results of treatment with protamine insulin in diabetics. Drs. Walsh, Hacking, Sargent, Kerney, Cohen and Benjamin are preparing special clinics in their departments.

### Personal Notes

The Twentieth Annual Meeting of the New England Surgical Association, held at Bridgeport, Conn., September 25-26, was attended by Rhode Island Surgeons A. A. Barrows, C. O. Cooke, M. S. Danforth, J. B. Ferguson, F. V. Hussey, A. T. Jones, L. C. Kingman, I. H. Noyes, J. C. O'Connell, and E. M. Porter.

Dr. Lucius C. Kingman, Surgical Chief, Rhode Island Hospital, Second Division, was elected President for the ensuing year. Other officers elected were: Dr. Walter G. Pippen, Salem, Mass., Vice President; Dr. John R. Birnie, Springfield, Mass., Secretary; Dr. James R. Miller, Hartford, Conn., Treasurer; Dr. Thomas H. Lanman, Boston, Mass., Recorder. Dr. Charles H. Holt of Pawtucket and Dr. Frank E. McEvoy of Providence were elected to membership.

The next Annual Meeting, September, 1937, will be held at Providence.

September 19, Dr. and Mrs. Roland Hammond sailed from New York on the Veendam for a six weeks motor trip through the South of England.

Dr. John F. Kenney and Dr. Joseph L. Dowling have returned from a visit to the medical centers in the Scandinavian countries and Russia, visiting the eye departments and medical departments respectively. While in Copenhagen, Dr. Kenney spent considerable time working with Dr. Hagadorn who discovered the new protamine insulin. He also attended clinics in Russia and witnessed the new canned blood transfusions.

September 23. The Annual Dinner and Outing of the Staff of the Memorial Hospital was held at the Pawtucket Golf Club. The winners in the afternoon golf tournament, played by 29 members and guests, were:—

Staff Low Net: Dr. H. A. Winkler, 85, handicap 18, 67 net. Staff Low Gross: Dr. B. Feinberg, 89. Guest Low Net: Dr. K. K. Gregory, 105, handicap 30, 75 net. Guest Low Gross: Dr. M. H. Merchant, 100. The attendance was 55. Dr. Robert T. Henry was Chairman of the Committee of Arrangements.

Dr. John A. Hayward is serving a second term as President of the Boston Society of Anesthetists.

Dr. John H. Gordon has been appointed to the Orthopedic Service, Out Patient Department of the Memorial Hospital.

Dr. Mark Rittner has moved his office to 180 Elmwood Avenue, Providence, continuing his practice in Eye, Ear, Nose, Throat, and Plastic Surgery.

Dr. Natalie Kechijian has opened offices at 84 Broad Street, Pawtucket, and 1051 Elmwood Avenue, Providence.

**Born:** September 9. To Dr. and Mrs. Armand A. Bertini of Pawtucket, a second child, first daughter.

September 18. To Dr. and Mrs. Kenneth G. Burton, a son.

The next written examinations and review of case histories of Group B applicants by the American Board of Obstetrics and Gynecology will be held in the various cities in the United States and Canada on Saturday, November 7, 1936, and on Saturday, March 6, 1937.

The next general examination for all candidates, Groups A and B, will be held in Atlantic City, N. J., on June 8 and 9, 1937.

Application blanks and booklets of information may be obtained from Dr. Paul Titus, Secretary,

1015 Highland Building, Pittsburgh (6), Pennsylvania. Applications for these examinations must be filed in the Secretary's office not later than sixty days prior to the scheduled date of examination.

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**Resolution Recommending the Appropriation of Adequate Funds for the Maintenance and Growth of the Army Medical Library's Book Collection and Index-catalogue.\***

WHEREAS, The value and usefulness of the *Index-catalogue* is dependent upon the completeness of the files of medical publications contained in the Library of the Surgeon-General's Office—a public, national, medical library, the greatest in the world, serving in its present form of administration with satisfaction the medical profession and the medical libraries of our country, and

WHEREAS, In recent years the annual appropriation of the Congress has been wholly inadequate to provide sufficient funds to acquire the current medical books and periodicals issued throughout the world, so that they might be available for use throughout the country and for inclusion in the *Index-catalogue*,

THEREFORE BE IT RESOLVED, That the Medical Library Association urges the Congress to appropriate annually to the Library of the Surgeon-General's Office an adequate sum for current medical books and periodicals and for the purchase of back publications lost during those recent years when the amount granted was grossly inadequate, thus depreciating the completeness and usefulness of the Library's collection; and an additional sufficient sum annually, for as many years as may be required, in order to make for the greatest possible completeness of the collection and its *Catalogue*; and

BE IT FURTHER RESOLVED, That a sum be appropriated annually to defray the cost of printing regularly each year not less than one volume of the *Index-catalogue*, and

BE IT FURTHER RESOLVED, That a copy of these resolutions be spread upon the minutes of the annual meeting of this Association and sent to the President of the United States, the presiding officer of both houses of Congress, the Secretary of War, the Surgeon-General of the Army, and to the national, state, and other medical periodicals with a request for publication, and to the members of this Association, urging the organization of which they are a part and all other medical associations and institutions to adopt similar resolutions to be sent to their local members of Congress requesting their support of these measures.

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\*Preprinted from the Bulletin of the Medical Library Association, vol. 25, No. 1, p. 12, September, 1936. Minutes of the Thirty-Eighth Annual Meeting, Session of June 22, 1936.

## RECENT BOOKS

ARTHRITIS AND RHEUMATIC DISEASE. By Maurice F. Lautman, M.D., Consultant to the United States Public Health Service Clinic and Director of the Department for the Study of Arthritis, Levi Memorial Hospital, Hot Springs, Arkansas, with a Foreword by Morris Fishbein, M.D., Editor, Journal of the American Medical Association, pp. 17-177. 1936. Whittlesey House, McGraw-Hill Book Company, Inc., New York and London. Cloth, \$2.00.

This very readable book of 173 pages and 12 illustrative photographs is one of the Whittlesey House Health series, edited by Dr. Morris Fishbein.

Its function is to clarify some of the mysticism surrounding the concept of arthritis, in the lay mind. This is admirably done by presenting in clear English a general discussion of its nature, its predisposing causes and its treatment, both prophylactic and therapeutic.

The arthritic patient or anyone interested can derive from this book a wholesome understanding of the general nature of arthritic disorders. He can learn the significance of such terms as arthritis, rheumatism, lumbago, neuritis and other oft-used and frequently misunderstood terms.

The fallacy of cults, "quick cures," faddism in diets, etc., are pointed out while emphasis is placed on the necessity for untiring effort and co-operation on the part of doctor and patient. But perhaps most important of all is the fact that Dr. Lautman has inculcated a spirit of healthy optimism based on rational grounds which is so important in the encouragement of arthritic patients.

It is a practical book, presenting well established facts which should help to promote in the arthritic a more patient attitude toward his disease and his doctor.

J. C. H.

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EXAMINATION OF THE PATIENT AND SYMPTOMATIC DIAGNOSIS. By John Watts Murray, M.D., with 274 illustrations. Second Edition. St. Louis: The C. V. Mosby Company, 1936. Price \$10.00.

This work, now in its second edition, is an attempt to aid the general practitioner in making his diagnosis of disease, particularly in its early stages. As the author states in the preface, the physician who has a complicated case and turns to his books, is baffled by the fact that the various headings are under diseases rather than symptoms. He thereby loses valuable time turning pages in an attempt to co-ordinate the symptoms into a disease entity. To remedy this condition, and to help the physician in taking his history, the first portion of the book consists of an Outline of a History-taking. Under the usual headings of a history form the author lists the questions which might be asked, and answers them by listing the various causes of each complaint. The second section of the volume contains outlines for examination of single organs or systems. Here symptoms resulting from disease of a single organ are considered in detail with suggestions for laboratory follow-up to clinch the diagnosis. Again in this section the material is arranged in the form of questions and answers. The former are grouped together as they might well be asked.



The answers are complete. Those answers which include laboratory work often give detail as to the procedure. Thus the method of concentrating sputum for the diagnosis of the tubercle bacillus is carefully described. In some instances the answers are almost too inclusive and might confuse the practitioner. However, it seems better that way as thereby the answer is not so final.

In each section after listing the symptoms in this manner, a brief résumé of the diseases involved is given. These are terse and to the point, leaving more complete information to other tests.

There are 274 illustrations. These include several sketches showing the anatomy under discussion and several sketches of surface anatomy that are pertinent. There are many illustrations giving points of physical diagnosis—as, for example, the differential findings by inspection of pregnancy, abdominal ascites, and ovarian cyst.

As a reference book this volume, with its adequate index, should be of value to the general practitioner in the type of case that is bizarre on first examination. It is another attempt to systematize medical diagnosis—to make what is an art into a science.

F. H. C.

**PEDIATRIC NURSING.** By John Zahorsky, A.B., M.D., F.A.C.P., Professor of Pediatrics and Director of the Department of Pediatrics, St. Louis University School of Medicine; and Pediatrician-in-chief to the St. Mary's Group of Hospitals; Fellow of the American Academy of Pediatrics. Assisted by Beryl E. Hamilton, R.N., Graduate of St. Luke's Hospital, St. Louis. With 144 illustrations in the text and 7 color plates. St. Louis: The C. V. Mosby Company, 1936, Cloth, Price \$3.00.

This book is one of several on the subject of pediatric nursing written by Zahorsky and Hamilton. It gives in a well written form the viewpoints of both the doctor and the nurse. This is a good combination as we all know that each gives a great deal of practical information to the other.

The subject matter of this book is unusually complete as it covers the whole field of pediatrics. Of course, the points are discussed in great brevity but the salient points are clearly brought out under appropriate headings.

The book is well supplied with interesting and instructive illustrations. There are several unusual color plates. The charts showing the fever curve and rash of the various infectious diseases are very instructive.

The book is divided into two parts, the Science and the Practice. The former summarizes the field of pediatrics from the strictly medical point of view while the latter takes up the nursing procedures of pediatrics. There are several interesting chapters on child psychology and related subjects, which too frequently are ignored by the medical profession.

Questions at the end of each of the chapters in part one, the index and the glossary make this a fine book for the class room in schools of nursing. **PEDIATRIC NURSING** is a valuable book for all nurses interested in children and may well be an addition to the doctor's library.

J. L.

**ABORTION, SPONTANEOUS AND INDUCED, MEDICAL AND SOCIAL ASPECTS.** By Frederick J. Taussig, M.D., F.A.C.S., Professor of Clinical Obstetrics and Clinical Gynecology, Washington University School of Medicine, St. Louis. Illustrated. St. Louis: The C. V. Mosby Company, 1936, Price \$7.50.

This volume of 536 pages is one of a series dealing with medical aspects of human fertility sponsored by the National Committee on Maternal Health, Inc.

A glance at the table of contents is enough to make one realize that this book has been carefully and painstakingly planned and built. Dr. Taussig has chosen to present his subject not only from the viewpoint of the medical man but also has gone into the broader aspects of the wide prevalence of abortion and its effects on public health. His avowed purpose has been to create a monograph that would deal with facts of anatomy, physiology, pathology, etiology, prevention, mechanism, diagnosis, treatment, complications and sequelae of interest to the medical student or practitioner; and in addition to present the facts of interest to the sociologist and student of public health, such as statistics of incidence of abortion in relation to population, to total confinements, to age of mother and number of pregnancies, to religion, to race and urban or rural groups, to puerperal septicemia.

The first chapters devoted to the strictly medical aspects are thorough and cover the field completely and make interesting reading to the student of this subject.

The chapters devoted to statistics and to the economic, domestic, theological, and ethical aspects of induced abortion are well worth study and careful thought as they are quite obviously written by an authority after years of research and study, and bring home to us the fact that in the coming years society will have to recognize the seriousness of this problem of induced abortion, bring it out into the light for careful consideration, and give it such treatment as may be found necessary to prevent the present great morbidity and mortality and undermining of moral integrity which result under the present legal attitude.

A chapter on legalized abortion in the Soviet Union is of more than passing interest as an experiment in social medicine. As might have been predicted the wholesale practice of abortion, the indications for which were often and legally the wish of the applicant, led to detrimental effects and sequelae so that now efforts to limit indications to certain conditions and do away with the necessity for abortions by birth control measures are being made.

Chapters on the legal aspects of induced abortion in various countries of Europe and in the States of the Union and on methods for better control of abortion conclude the book.

No brief review can in any way do justice to this excellent work. The practitioner of medicine and the man interested in social medicine and public health will want to read it for himself. The specialist will want it on his shelves for reference both for its value in his specialty, and for an insight into this problem and its future, the importance of which Dr. Taussig has so clearly shown.

G. W. WATERMAN.





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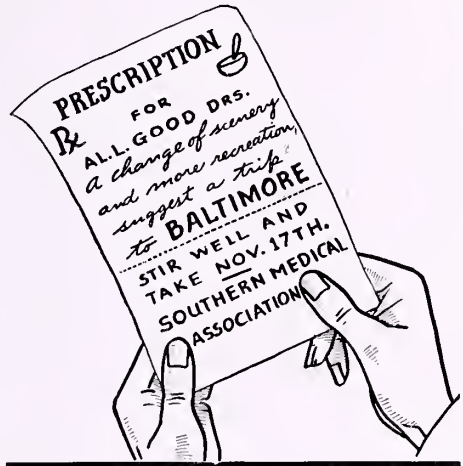
[German physicians who are to attend the forthcoming "National Camp of Doctors" in Thuringia have been ordered to wear a uniform of "dark, loose trousers gathered in at the ankles by elastic, a double-breasted black jacket with white buttons three inches in diameter, a white sports shirt open at the neck, and a black beret." It is hoped that this costume will "also be worn in civilian life."]

I am gay, I am svelte, I am lithe,  
 My get-up is graceful and active;  
 By beret is bonny and blithe,  
 My bloomers full-blown but attractive.  
 My buttons (three inches across)  
 Add tone to the other alignments;  
 I count the silk hat and its gloss  
 Well lost for these later refinements.  
 You think my appearance is rum,  
 And possibly unprepossessing?  
 Pray, why should physicians be glum,  
 Their costume subdued and depressing?  
 The patient, poor handicapped pup,  
 May well feel his spirits at zero—  
 But he ought to be rather bucked up  
 When the doctor blows in as a pierrot.  
 Who cares if the die-hards, put out,  
 Denounce this departure most hotly?  
 The wiser will welcome no doubt,  
 The mixture of medicine and motley.  
 Away with the old-fashioned law,  
 By dryasdust doctors imparted!—  
 If the patient begins to guffaw,  
 The curative treatment has started.

LUCIO.

When a patient is sent to one specially skilled in the care of the condition from which he is thought to be suffering, and for any reason it is impracticable for the physician in charge of the case to accompany the patient, the physician in charge, should send to the consultant by mail, or in the care of the patient under seal, a history of the case, together with the physician's opinion and an outline of the treatment, or so much of this as may possibly be of service to the consultant; and as soon as possible after the case has been seen and studied, the consultant should address the physician in charge and advise him of the results of the consultant's investigation of the case. Both these opinions are confidential and must be so regarded by the consultant and by the physician in charge.

*From the Code of Ethics of the A. M. A.*



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*Laryngoscope*, Feb. 1935, Vol. XLV, No. 2, 149-154  
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## *In This Number*

The Schilling Hemogram in Appendicitis by Dr. Henri E. Gauthier, Woonsocket, R. I.  
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## Vitamin A

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## Vitamin B<sub>1</sub>

The reference standard is the concentrate produced from rice polishings, by a specified adsorption method, in the Medical Laboratory of Batavia (Java). The International Unit for vitamin B<sub>1</sub> is the vitamin B<sub>1</sub> activity of 10 mg. of this standard adsorption product.

## Vitamin C

The standard of reference for vitamin C is a specified sample of pure levo-cevitamic acid (levo-ascorbic acid). The International Unit for vitamin C is the vitamin C activity of 0.05 mg. of this standard.

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(1) 1935. Nutrition Abstracts and Reviews 4, 709.  
(2) The Pharmacopoeia of the United States of America, Eleventh Decennial Revision, p. 261.

(3) 1936. Report of the Council, J. Amer. Med. Assoc. 106, 1733.  
(4) 1935. J. Assoc. Official Agr. Chem. 18, 610.

(5) 1935. J. Home Econ. 27, 658.  
(6) 1936. Food Research 1, 223.  
(7) 1935. J. Nutrition 9, 667.

*This is the nineteenth in a series of monthly articles, which will summarize, for your convenience, the conclusions about canned foods which authorities in nutritional research have reached. We want to make this series valuable to you, and so we ask your help. Will you tell us on a post card addressed to the American Can Company, New York, N. Y., what phases of canned foods knowledge are of greatest interest to you? Your suggestions will determine the subject matter of future articles.*



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	Emphysema
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### CAUSES OF ALKALOSIS

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PROVIDENCE, R. I., NOVEMBER, 1936

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## THE SCHILLING HEMOGRAM IN APPENDICITIS\*

HENRI E. GAUTHIER, M.D.  
34 HAMLET AVENUE, WOONSOCKET, R. I.

The conception of this unique arrangement of the polymorphonuclear neutrophiles, of which Schilling was the originator, dates back to the year 1909. This idea was substantiated by several papers explaining the new arrangement and in 1912, the first edition of his book, devoted to tropical diseases, was published. Later, the Hemogram was applied to General Medicine and has proved to be of great value because of its symptomatic, diagnostic and even prognostic significance. In 1929, the Seventh and Eighth editions were translated into English by Gradwohl of St. Louis and within two years, this English translation was completely exhausted.

The text-books generally give scant and indefinite information concerning the clinical laboratory findings in Appendicitis. The authors fairly well agree, however, on the importance of a leucocyte count, though some consider it of comparatively little value, others consider it of equal value to the pulse and temperature. We are informed further that the leucocyte counts may vary considerably, that a count of 30,000 leucocytes may indicate a gangrenous appendicitis, whereas, in a patient with a lowered resistance and with an inflammatory process just as severe, the leucocyte count may be only 2,000. This is remindful of the saying that "A competent theologian never sins because he is able to find loopholes to every conceivable accusation of sin." Mention is further made that there is a relative increase of the polymorphonuclear neutrophiles and even such increase is of very little help at times in making a diagnosis. For the surgeon who relies on the history, symptoms and the aspect of the abdomen for his diagnosis, a leucocyte count and an increase of the polymorphonuclear neutrophiles will constitute conclusive proof that an operation is indicated. Should neither of these fit into

the clinical picture, it might be to his advantage to disregard them altogether.

There is no infallibility in the diagnosis of appendicitis. All the information possible must be weighed carefully. The diagnosis is very simple when the history, symptomology, objective signs and laboratory findings fit the text-book picture, but when confronted with a case which is at variance with this slide rule, the diagnosis then becomes either one of chance, or one of analytical dissection of its every phase. The diagnosis of appendicitis must be more than a simple diagnosis; it must be inclusive to the point of being informative on the degree, severity and the extension of the inflammation present and in view of a more critical clientele, it must in itself prognosticate on the chances, immediate and remote, for recovery. Obviously, an estimation of the true underlying condition is far more difficult and demands meticulous observation of all the evidence gathered.

It is my intention to view the Schilling Hemogram from a surgeon's standpoint and not as would a skilled pathologist or hematologist. It would be presumptuous to expect a masterful interpretation of the Schilling Hemogram on the part of a surgeon and therefore only those hap-hazard observations made in the course of ordinary surgical practice and deemed worthy of mention, will be dwelt upon.

To understand fully the definition of the Schilling Hemogram, one must be familiar with the Ehrlich Differential Blood Count. Up to a few years ago, when a differential white blood count was requested, the Ehrlich differential count was made and the cells were grouped as follows:

Basophiles .....	0.5%
Eosinophiles .....	2-3%
Polymorphonuclear Neutrophiles .....	60-65%
Large Lymphocytes .....	5-10%
Small Lymphocytes .....	20-25%
Monocytes .....	3-5%

In the Schilling Hemogram, the basophiles, the eosinophiles, the lymphocytes and the monocytes have been retained, but the polymorphonuclear neutrophiles have been further divided into the segmented and non-segmented cells, namely, the

\*Read before the One-hundred and twenty-fifth Annual Meeting of the Rhode Island Medical Society, Providence, June 3 and 4, 1936.

segmented nuclears as the mature polymorphonuclear neutrophiles and the non-segmented cells grouped according to the following nomenclature—the stab nuclears or band forms as mature non-segmented cells; the myelocytes and juveniles as the immature non-segmented cells.

The presence of the myelocyte indicates hyperactivity or marked regeneration. In large numbers, it confirms the diagnosis of myelogenous leukemia. It is never to be found except in very grave conditions. The juvenile cell is an immature polymorphonuclear neutrophile, is rarely in the peripheral blood system and its presence is significant of regeneration. The stab nuclear or band cell is a mature cell, lacking segments. An increase means degeneration, grave infection or poor resistance. The segmented nuclear is the mature segmented polymorphonuclear neutrophile of the original Ehrlich differential group. All these cells have their origin in the bone-marrow.

An increase in the lymphocytes is indicative of either rejuvenation or irritation. After a long and severe illness, a steady increase is proof of healing.

The significance of the monocytes is not altogether clear. They increase with infection and are held and believed to be the last cells to return to normal following infection.

An increase of the non-segmented stab or band forms above the normal limit and the appearance of the juvenile cells constitute a shift to the left, the greater the shift the more severe the infection. In some cases this shift is rapid and pronounced while in others, even though the infection is severe, the shift may be moderate and may be entirely absent. As in the Ehrlich differential, infection results in an early increase in the polymorphonuclear neutrophiles. Should the infection be trifling, these cells are moderately increased, whereas in the presence of severe infection, greater reaction follows and the bone marrow, if capable, will send out all the available polymorphonuclear neutrophiles and should these not suffice, the immature cells must respond. Therefore, it is evident that the segmented forms act as a lever, an increase on the left, occurring in acute infections, interpreted as a shift to the left, while an increase on the right, occurring in chronic infections and during convalescence of severe acute diseases, is interpreted as a shift to the right for the former and as a healing phase for the latter.

The degree of shift to the left is expressed by the Nuclear Index, which is normally over ten. It is obtained by dividing the number of non-segmented forms into the number of segmented forms. This index may be normal or above normal even in the presence of infection, when the non-segmented forms have failed to increase because of lack of reaction, lack of resistance or because of sufficient segmented forms. When the non-segmented forms are as great or greater in number than the segmented forms, the nuclear index is 1 or —0 and such a condition is usually of grave prognosis and very often fatal. It is referred to as an Agonal Picture.

The basophiles are normal up to 1%. The eosinophiles are present from 2 to 4%. In the normal Hemogram, the myelocytes are absent. Though normally absent, the juvenile neutrophiles may be present up to 1%. The normal range for the stab nuclear is from 3 to 5%, while the segmented nuclears are present in normal limits from 51 to 67%. The lymphocytes are normal in number if they are within 21 to 35% and the monocytes average from 4 to 8%. In the normal Hemogram there is no shift, the Nuclear Index being over 10.

At first sight, some of the claims of the Schilling Hemogram sounded very mythical, but they drew more interest when the cell arrangement was found to fit the operative findings and the pathological reports in a surprising percentage of cases. As previously stated, the Schilling Hemogram has not been found to be infallible, but through it more information has been derived from laboratory findings than heretofore. There has been less hesitancy to operate upon the nervous patient who does much to conceal his symptoms and a better understanding of the muscular abdomen is possible. Every surgeon has had at some time a nervous patient who refused to admit nausea, vomiting, tenderness or pain, with the result that a diagnosis of appendicitis was dispelled, only to be greatly surprised on the subsequent visit by the presence of a mass in the right lower abdominal quadrant. On the first visit, the disease was probably in an early stage; had a blood count been insisted upon, it would undoubtedly have helped to give the desired information. Schilling appropriately says that: "Clinical observation of a nervous and somewhat excitable patient often inclines us to be led astray, in spite of our most careful investigations." For the past six years, every suspected case of appendicitis in my



practice was referred for a complete blood count and a Schilling differential blood count. With each case, my interest in the Schilling Hemogram became more intense. Having gained some knowledge of the fundamental principles of the Schilling Hemogram, I have collected 148 cases which have been classified and will be presented in groups. Individually, a discrepancy occasionally appears, which may be caused by any of several factors.

Table I

CHRONIC-CYSTIC, DEGENERATIVE OR OBLITERATIVE NEUTROPHILES								
Case	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Lym.	Mon.	% Neut. N.I.
1	14,000	.....	5	2	79	14	.....	86 11.2
2	18,000	.....	6	5	63	21	5	74 5.8
3	8,500	.....	3	3	57	32	5	63 9.5
4	9,200	.....	3	5	67	24	1	75 8.3
5	10,000	1	10	3	40	46	.....	53 2.8
6	5,200	3	1	2	67	25	2	70 22.3
7	14,000	1	3	2	76	15	3	81 15.2
8	12,600	.....	5	2	83	5	5	90 11.8
9	10,500	.....	3	2	65	24	6	70 13
10	6,500	2	.....	4	70	24	.....	74 17.5
11	6,500	.....	5	4	65	24	2	74 7.2
12	9,050	1	4	5	66	21	3	75 7.3
13	13,000	.....	4	.....	78	14	4	82 19.5
14	18,000	.....	3	6	79	8	4	88 8.7
15	10,000	.....	7	1	76	15	1	84 9.5
16	18,500	3	10	3	50	30	4	63 3.8
17	20,000	.....	5	11	77	6	1	93 4.8
18	9,500	1	.....	4	81	9	5	85 20.2
19	7,500	.....	6	.....	73	20	1	79 12.1
20	14,000	2	6	3	74	11	4	83 6.6
Avg.	11,727	0.7	4.4	3.3	69.4	19.4	2.8	77 10.5
Range	5,200 20,000	0-3	0-10	0-11	40-83	5-46	0-6	53-93 2.8-22.3

The first group consists of so-called chronic cases, namely—Simple Chronic, Chronic Cystic, Chronic Degenerative and Chronic Obliterative Appendices. In these groups the microscopical pathological diagnosis has been used as a basis for the classification. A wide range is found in the leucocyte count—from 5,200 to 20,000, with an average leucocyte count of 11,727. The eosinophiles have kept within normal limits. With the exception of two cases, numbers 5 and 16, the juveniles have displayed only a moderate increase with an average of 4.4 for the group. The stab nuclears are within the normal limits, except case number 14, which has a count of 6, and case number 17, a count of 11. The average obtained for the stab nuclear cells is normal. The segments show a decrease below normal in case number 5, which has a count of 40, otherwise, they show varying degrees of increase to 83%, for an average of 69.4. The lymphocytes range from 5 to 46 and average 19.4. Only in case number 5 is the count higher than normal. The monocytes remain within a normal range. The percentage neutrophiles averages 77% and ranges from 53 to 93%. The nuclear index varies greatly from 2.8 to 22.3. A low nuclear index with considerable shift to the left is present

in cases 17, 16, 2, and 5. In estimating the need for operative intervention, one must evaluate in order the number of white blood cells, juveniles, stabs, segments, the percentage neutrophiles and the nuclear index.

Table II

SUB-ACUTE APPENDICES NEUTROPHILES									
Case	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Lym.	Mon.	% Neut.	N.I.
1	5,200	.....	6	1	61	26	6	68	8.7
2	22,800	.....	.....	16	59	12	13	75	3.7
3	11,400	3	.....	10	71	15	1	81	7.1
4	18,000	.....	2	1	81	7	9	84	27
5	7,500	.....	.....	4	87	7	2	91	21.7
6	14,500	.....	3	2	59	24	12	64	11.8
7	10,500	.....	4	6	70	15	5	80	7
8	20,000	.....	4	2	91	3	.....	97	16.1
9	13,500	.....	4	.....	64	26	6	68	16
10	5,400	1	.....	6	59	25	9	65	9.8
11	14,600	.....	.....	14	72	7	7	86	5.1
12	16,000	.....	5	6	82	3	4	93	7.4
13	10,200	2	.....	8	66	20	4	74	8.2
14	20,000	.....	.....	2	75	15	8	77	37.5
15	16,000	4	.....	7	59	12	8	76	3.4
16	8,500	.....	7	5	64	20	4	76	5.3
17	14,200	.....	8	.....	80	9	3	88	10
18	9,300	.....	2	3	85	10	.....	90	17
19	8,500	.....	.....	2	76	12	10	78	38
20	9,500	.....	.....	4	74	16	6	78	18.5
21	16,000	2	.....	3	80	12	3	83	26.6
22	16,400	2	6	5	70	12	5	81	6.3
23	23,000	1	2	4	78	12	3	84	13
24	8,400	1	1	3	78	16	1	82	18.7
25	12,900	1	3	2	92	2	.....	97	18.4
26	6,500	.....	.....	5	63	31	1	68	12.6
27	9,500	.....	2	4	72	18	4	78	12
28	12,000	.....	5	3	71	15	6	79	8.8
29	11,000	.....	2	7	72	15	4	81	8
30	10,500	.....	5	8	73	14	.....	86	5.6
31	9,000	2	2	5	54	30	7	61	7.7
32	8,400	.....	5	2	60	29	4	67	8.5
Avg.	12,475	.59	2.6	4.8	71.8	15.3	4.9	79.25	13.31
Range	5,200 23,000	0-14	0-8	0-16	54-92	2-31	0-13	61-97	3.4-38

A total of thirty-two cases of sub-acute appendicitis have been collected to form table 2. It will be seen that the leucocyte count and the component cell groups have a greater range than was present in the chronic appendices. The leucocyte average of 12,475, also is greater. The eosinophiles remain within a normal zone. The juveniles, in most cases are either absent or very moderately increased, the greatest count being 8%. In none of these cases is there a pronounced stab shift. In fact, of the thirty-two cases, in only ten is an increase above normal seen, the highest count being 16% found in case number 2. A wide range is met with in the segment column, being from 54 to 92 with an average of 71.8. The lymphocytes range considerably, depending upon the degree of shift, in no case, however, are they found to be above normal. The average lymphocyte count is 15.3. In the monocyte column, there are 5 cases with an increase above normal, the highest count is 13 and the average 4.9. The range in percentage of the neutrophiles extends as high as 97% with a low of 61%, the average being slightly higher than in the preceding table. The nuclear index, because of the higher average obtained, is indicative of less shifting to the left.



Table III

ACUTE APPENDICES NEUTROPHILES									
Case	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Lym.	Mon.	% Neut.	N. I.
1	17,500	1		8	84	5	2	92	10.5
2	20,500		4	2	82	12		88	13.6
3	14,000		4	16	75	3	2	95	3.7
4	30,000		7	29	56	8		96	25.5
5	16,000		1	8	71	12		84	5.4
6	13,900	4	5	10	87	2		98	7.9
7	26,000		2	5	84	9		91	12
8	14,500		3	3	81	12		87	13.5
9	13,500	1	2	9	78	9	2	89	7
10	32,000		1	17	70	12		88	3.8
11	14,000		2	6	80	12		88	10
12	12,200		6	6	63	16	3	75	5.2
13	22,400	6		9	85	6		94	9.3
14	17,000		2	10	78	10		90	6.5
15	8,950		6	4	74	12	4	84	7.4
16	26,600		3	16	72	6	3	91	3.2
17	28,200		6	7	84	2	1	97	6.4
18	10,000		40		58	2		98	1.4
19	18,500		2	17	68	11	2	87	3.1
20	10,600		2	9	84	7		93	9.3
21	15,450		2	6	85	2	5	93	10.6
22	20,000		3	7	83	4	3	93	8.3
23	23,000		5	12	63	14	6	80	3.7
24	20,500		3	17	67	5	8	87	3.3
25	16,500		4	6	74	11	5	84	7.4
26	18,600		10	10	62	14	4	82	4.1
27	10,600		3	6	73	12	4	82	8.1
28	9,800	2	6	14	75	2	3	95	3.7
29	16,800		2	9	72	14	2	83	6.5
30	10,000	1	2	12	83	3		97	5.9
31	9,000		9	5	79	7		93	5.6
32	22,800		4	5	72	14	3	81	8
33	20,000	2	30	49	79	12	6	79	1.6
34	16,000	3	5	10	73	12		88	4.8
35	12,000		2	8	66	24		76	6.6
36	18,000								
37	22,000								
Avg.	17,659	.54	3.1	11.02	74.5	8.6	2	88.7	7.0
Range	8,950 32,000	0-6	0-10	2-40	49-92	1-24	0-9	75-98	1.4-25.5

Table 3 represents the findings in thirty-seven acute appendices. It shows a substantial increase throughout in comparison with the findings of the two previous diagrams. The average of the white blood cells being 17,659 is 5,000 cells more than the average obtained in the sub-acute appendices. There is nothing abnormal in the eosinophile column except in case number 13, where a count of six is present. A perceptible increase is found in the juveniles, both in the average and the range. The average stab count is almost tripled and the highest count is 40, this occurring in case number 20 where the white blood cell count is only 10,600 with a neutrophilic count of 98%. Except for the two lymphocytes it would have been a total neutrophilic count. The shift in this case is decidedly degenerative. The average segment count is slightly higher than in the last diagram while, in its range, the low only goes down to 49 compared to 44 in the sub-acute appendices and the high is the same, 92. There is a decrease, both in the lymphocytes and the monocytes which is suggestive of a greater shift to the left. The percentage of neutrophiles is increased in its average by ten points and the range is maintained much higher. The nuclear index is decreased by half over that of the preceding table, which is evidence again of a greater shift.

Table IV

ACUTE GANGRENOUS APPENDICES—NON-PERFORATED NEUTROPHILES									
Case No.	Age	Sex	White Blood Cells	Juveniles	Stabs.	Seg-ments	Lym-pho-cytes	Mono-cytes	% Neu-tro-philes Nu-clear Index
1	2½	M	16,000	7	16	54	19	4	77 2
2	11	M	18,000	2	10	84	1	3	96 7
3	15	M	14,000	3	19	70	8	0	92 3
4	22	F	14,500	11	11	63	13	2	85 2
4	6 hrs. later		16,400	7	8	72	9	4	87 5
5	25	M	16,000		2	86	6	6	88 43
5	Next day		17,000	2	6	86	6		94 10
6	26	M	10,400	4	12	69	11	4	85 3.7
6	Next day		16,000	12	5	72	8	3	89 4
7	42	M	18,000		14	76	9	1	90 5
7	6 hrs. later		18,950	5	10	78	7		93 5
8	43	F	24,000	6	11	79	4		96 4
Average			16,604	4.9	10.3	74.08	8.4	2.2	90.5 3.7
Range			10,400 24,000	0-12	2-19	54-86	1-19	0-6	77-96 2-7

There are eight non-perforated acute gangrenous appendices worthy of mention. It may be well to state at this time that blood counts should be made early and repeated at four to six hour intervals in doubtful cases. In this group, the white blood cells have a lower average and the range is not as great. There is an increase in the number of juveniles both in the average and the range. The stabs average slightly less than in the foregoing diagram and the range does not reach such a high level. The segments, lymphocytes and monocytes maintain about the same average as was found in the cases analyzed under acute appendices and their ranges are not as pronounced. The percentage of neutrophiles attains a higher average but the range is confined to a shorter extension. The nuclear index is half that of the acute appendices and the range is from 2 to 7.

(Continued in the December Number)

Fellows of the Rhode Island Medical Society who have not received the special invitation to attend the meeting of the Southern Medical Association, to be held at Baltimore on November 17-20, should consider the general invitation which has been printed in several issues of the JOURNAL, in the advertising section. "Regardless of what any physician may be interested in, regardless of how general or how limited his interest, there will be at Baltimore a program to challenge that interest and make it worth while for him to attend." A complete program may be obtained by addressing the Southern Medical Association, Empire Building, Birmingham, Alabama.

## CORONARY THROMBOSIS\*

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In a very amazing fashion, coronary thrombosis has within a few years become familiar in medical speech. It happened to be one of those medical entities which, when it was delivered to us by Dr. J. B. Herrick, was readily and completely accepted as a matter of course. One is reminded of the earlier situation in regard to duodenal ulcer. Thirty years ago duodenal ulcer was supposed to be rather rare. In the case of duodenal ulcer, we had an instrument of precision, the X-ray, through the rapid development of which the easy diagnosis of duodenal ulcer became possible. In the case of coronary thrombosis, the electrocardiograph has facilitated the diagnosis in many obscure instances but has never played the essential role in diagnosis that the X-ray does in duodenal ulcer.

If one attempts to develop further the outstanding pathology of coronary thrombosis and to elucidate the etiologic factors which underlie the thrombosis, he comes to an impasse. We recognize clinically and pathologically the essential features of this condition and yet approach no closer than vague suspicion to the underlying causation. It is fashionable to say that any vascular disease represents the toll that the so-called stress and strain of modern life puts upon individuals. Such generalities strike me as inane and in many instances inaccurate. It is difficult to discover any factual data which are in the slightest convincing but it is extremely easy to get sentimental about vascular disturbances. If one brings forth the incidence of coronary thrombosis in individuals who have lived at what might be fairly called only first or second speed, the usual rejoinder is that it is the internal nervous sensitiveness of the individual which made his hillocks look like mountains. This reasoning seems to me unprofitable. One of the facts which does stand out is that there is a somewhat rough and general association in families of a tendency to vascular disease. A second fact is that this condition is much more common in men than it is in women. The third fact is that frequently but not always coronary thrombosis is associated with other vascular changes such as hypertension.

On the other side of the picture, we find the impression that the disease is on the increase and that the age incidence is apparently being lowered. We see cases of coronary thrombosis as early as the twenties and very rarely in the teens, occasionally in the thirties and frequently in the late forties. Because we have assumed that coronary thrombosis denotes old age it has startled us to realize that the condition occurs not infrequently in relatively early adult life.

We are in a haze in our views about the relation of cholesterol to this form of arteriosclerosis. We know that this is a rather highly selective form of arterial damage and that peripheral pipe stem arteries have no significance insofar as the coronary arteries are concerned. At one time, it was quite fashionable to take X-ray pictures of the legs of individuals with the notion of discovering the incidence of calcification in the arteries and possibly some index of the general arteriosclerosis. There was an attempt to link this to certain dietetic abnormalities such as the high fat diet which was so frequently obtained in diabetics before insulin was discovered. The fact that people with diabetes and on a high fat diet have more calcification in the arteries of their legs proves only that they have calcification in the arteries of their legs. It does not prove that calcification in the arteries of their legs is harmful. It does not prove that because they have calcification in the arteries of their legs they have arteriosclerosis anywhere else in the body. It certainly does not prove that the high fat diet necessarily had anything to do with it.

Somewhat over fifteen years ago, some X-rays were taken on both knees of a patient of mine. He was then in the sunny fifties and had wrenched his knee playing tennis. The X-ray showed nothing wrong with the structure of the knee joint but an extensive calcification of all of the blood vessels of his legs. The X-ray man thought that he should have a great deal of pain and discomfort in his legs but he had none at that time except the disability incident to the strained knee. He is now crowding seventy and is still playing tennis.

The uncle of this patient, a gentleman well over seventy, fell and fractured his popliteal artery. This required the intervention of a surgeon who found the popliteal artery entirely calcified and was at a good deal of bother to find a satisfactory place to tie the artery. Despite the gloomiest of prognostications, the old gentleman got along for a couple

\*Read at Providence, R. I., April 6, 1936, before the Providence Medical Association.

of years without an amputation of his leg despite the fact that his popliteal artery was tied. One cannot help wondering if the localization of some types of arteriosclerosis is not under family influences. This is only an isolated observation and I put no stress except on its negative value. The occurrence of calcification in the vessels in the leg does not indicate the presence of any disturbance of the coronary artery that leads to coronary thrombosis.

Coronary thrombosis is part and parcel of angina pectoris. Angina pectoris is the major symptom of coronary thrombosis but not every patient with angina pectoris will have coronary thrombosis. I was called some thirty miles out of town to see a man who had been into Boston the day before for his annual or semi-annual overhauling. The doctor who had seen him was one of our most competent internists. The patient was in the early sixties and ever since his youth had had attacks, chiefly but not exclusively on exertion, which he called angina. They were rarely severe and were accompanied by no objective findings. Although the patient was supposed to be nervous and emotional, he had filled very satisfactorily an important position as teacher in a boys' school. The pain had rarely if ever interfered with his teaching. From his description it was substernal pain of varying intensity. There were periods when it was nearly constant and rather severe and other periods when it was inconsequential and there were in these periods waves of greater and lesser intensity. When I arrived, the patient was obviously excited. He looked the part of a well fed, rather robust man in good health. He had a little fever, a tachycardia and the sounds of his heart were poor. I felt that he had a coronary thrombosis, despite the years of angina of a very questionable variety. His brother-in-law, a doctor, sighed somewhat heavily when I gave my opinion and remarked "Of course, we have been through this many times before." This patient died a little over twenty-four hours later, the death of coronary thrombosis.

Another case was that of a man well over seventy when he died, who had had for over forty years something that he called angina. The doctor who had taken care of him for forty years before I saw him was living and I had seen him for a half a dozen years or so. The doctor said, "I gave up the practice of medicine when I was eighty and I cannot now tell the difference between true and false angina any better than I could when I started the

practice of medicine. If there is any such thing as false angina, this man has it and will die of something else." Curiously enough, however, his angina got rather more definite and precise. He finally died in an attack which seemed like nothing except coronary thrombosis. There was no autopsy and in neither of these cases were there electrocardiograms. I state these cases at considerable length as suggestions that coronary thrombosis occasionally does not come out of a clear sky but happens in patients who have had what has been known as false or nervous angina. The early, very mild, seemingly trifling attacks were precursors of something which was very much more serious.

There is no case which is more satisfactory when it comes up for discussion at the autopsy table than that of coronary thrombosis. Autopsy discussions always seem to me to be helpful but often unfair because there is an undisputable fact in the solution of the diagnostic mystery, namely, that the patient is dead. How different it is in clinical medicine. We see a living man. He is of the right age, he is apprehensive and has pain. The pains may not be entirely typical but they will do. What are we going to do about it? What are we going to call it? The situation is complicated by the fact that not only is the patient apprehensive but his family is much more so. There is nothing that one can do to establish the diagnosis with certainty at that time. Although I know that the patient has coronary thrombosis and consequently have an electrocardiogram taken, my experience is that the finding at that time is usually normal. After he has gone through the long complicated illness and is able to come to the office, the electrocardiogram then shows the characteristic changes. I know of no rule of thumb by which a diagnosis can surely be made. I have seen gall stones, gastric ulcer, gastric cancer, pancreatitis, cancer of the pancreas, stone in the kidney, pericarditis, pleuritis, pneumonia and constipation, even the new infectious pleurodynia, mistaken for coronary thrombosis.

Eventually the differential diagnosis is easy but it may be far from that at any given moment. I am very skeptical about histories of pain and their radiation. As an example, after several internes have finished with a patient with duodenal ulcer this patient will glibly start off and say, "Yes, I have hunger pains associated with an empty stomach and relieved by soda or food." This patient had a very different story when he first went to the



doctor and before he was trained by visits to doctors and hospitals. The description of his pains was not so definitely neat as it afterward became. I have had long discussions with doctors about the precise localization of pain in coronary thrombosis and this is the only safe rule that I know: that in coronary thrombosis, the pain is usually but not necessarily in the chest. It may be in the neck, in the hands, even the right hand, in the abdomen, or there may be no pain at all!

Many of these patients look as if they were sick but that depends upon two factors, the intensity of the pain and the individual. It is sometimes helpful to remember the British classification of typhoid fever, into three classes: the very severe, the moderately severe and the mild. There may be all variations of coronary thrombosis, very mild to very severe. There are some people who are easily upset by pain and others who are not. I have had men in my office who had coronary thrombosis but made light of it and I could not see that it affected their pulse very much, yet after a bit they have become very sick and some have died. One makes the diagnosis of coronary thrombosis in the first instance by thinking of it and in the second instance by eliminating as well as possible the other conditions that need to be considered. If your experience is like mine, you have seen and made mistakes and will continue to make mistakes. But when the case is over, especially if the patient has died, the difficult diagnosis can be made with an emphasis and a conviction that is truly didactic.

One needs to be careful about talking of the prognosis while the patient lives, whether or no the official diagnosis is coronary thrombosis. We may say emphatically that there is no coronary thrombosis, we do not even think that there is any angina. The X-ray shows a small heart, there is a low blood pressure, the electrocardiogram is repeatedly negative. Despite all that, the individual may have rather suddenly an attack which is unquestionably coronary thrombosis and which will result in the proof of the condition at autopsy. Again, the precise converse of this is true. Even with the diagnosis of coronary thrombosis and with the help of X-ray and electrocardiograms, one cannot always be sure as to the extent of cardiac damage.

I do not know to this day whether one patient of mine has had coronary thrombosis or not. He has had various attacks with pain sometimes in his chest, sometimes in his upper abdomen. Half the doctors

who have been called in a hurry have said it was angina and coronary thrombosis and the other half called it indigestion. He has a small heart and a low blood pressure. Some of his electrocardiograms could be interpreted as positive and some as negative. One or two of his electrocardiograms, when he was feeling particularly well, have been decidedly poor and any cardiologist would certainly say, "Grave myocardial damage." These abnormalities have all cleared up and he is still living, or was very recently. The awful part of this is that he never has one of the attacks except when he gets indigestion, constipation, some cause of worry and extra excitement and usually something to drink. When he behaves himself from the hygienic point of view, he does very well and is thoroughly convinced that he suffers from nothing more than constipation. I am not ready to make a diagnosis and I refuse to make any prognosis whatsoever. A substantial percentage of such cases eventually turn out to have a dual pathology, for example, gall stones and mild coronary thrombosis. Some of them by successful operation get such remarkably good results that the diagnosis of coronary thrombosis as a real factor in the patient's life must be given up. Too often the eventual outcome, delayed for years of well being, substantiates the accuracy of the diagnosis of coronary thrombosis.

The attacks of coronary thrombosis may be of varying severity, depending upon the situation and extent of the pathologic process. As our knowledge accumulates we are beginning to try to estimate during life not only the extent but the situation of the coronary thrombus. This is possible in certain favorable cases where all the factors seem to show significant findings which all agree. The introduction of a fourth lead and other leads indicate that there are reservoirs of information that we would like to tap but which the usual three electrocardiographic leads do not reach. A patient may have a very stormy time with his coronary thrombosis and seemingly recover and be in excellent health for many years. On the contrary, a seemingly mild attack of coronary thrombosis may be followed by devastating myocardial signs and symptoms. The classical story of coronary thrombosis is persistent anginal pain, usually with vomiting. This pain is not relieved by nitroglycerin and frequently requires several quarters of morphia for relief. After twenty-four hours, there is likely to be a little fever, often accompanied by a poly-

nuclear leucocytosis. In about forty-eight hours one may expect to hear a localized pericardial friction rub. Subsequently, the cardiac rhythm is affected, often violently, beginning with extra systoles, perhaps going into fibrillation and often returning to normal rhythm. The pulse rate with the regular rhythm may be quickened or slowed and the blood pressure, perhaps increased at first, is apt to be much lowered. In severe cases, frequently within the first two or three days, evidence of pulmonary infarction is found but outside of a little cough or a very little bloody sputum these infarctions are apt to be symptomless. Without increased respiration, dyspnoea, or cough, they are often overlooked. It must be remembered that anything may happen and that typical cases are extremely rare. The pain may persist irregularly for twelve to ninety-six hours and yet recovery take place. The more persistent the pain the poorer the prognosis. It has been my experience that young people often have very devastating attacks of coronary thrombosis from which they recover as far as any symptoms are concerned, but that a serious attack of coronary thrombosis in the elderly, around seventy, is a much more momentous affair. I recall well a doctor of sixty odd who had some premonitions of pain on Thanksgiving morning but paid no heed to this and ate a large Thanksgiving dinner. In consequence of that or something else he had a terrific substernal pain which lasted for over forty-eight hours. He had fever and leucocytosis, a pericardial friction rub, large infarctions in his lungs and violent disturbances of his cardiac rhythm. He was in bed for a month and did very little for three months but now, approaching 70, he is back doing full work as general practitioner, climbing stairs, doing obstetrics and everything. His coronary thrombosis occurred in December, 1931. His electrocardiograms have consistently shown myocardial damage and the typical picture of coronary disease. He has not taken particularly good care of himself but has taken digitalis daily. He has now the same gallop rhythm that he had shortly after his attack of coronary thrombosis and the heart's sounds have a sinister thrill.

In only a few cases is the attack of coronary thrombosis more than a severe pain in the chest and a disability of a day or so at the most. The attack of coronary thrombosis which represents what is to the patient necessary illness is relatively rare. Not infrequently one finds that the patient

has actually forgotten about his attack of pain although it was so severe that he got some doctor out of bed to give him morphia, but the next day he was well. At a distance it is difficult to say whether it was gall stones, coronary thrombosis or what. In such a case, the electrocardiogram is not infrequently of decisive value. The subsequent devastation of the myocardium does not seem to be dependent upon the storminess of the symptoms but rather upon other factors in the pathology. While the coronary arteries are supposed to be terminal vessels the recent work showing that the myocardium can receive nourishment from the Thebesian vessels is important. As the variation in the Thebesian vessels is very great, it is possible that an individual who has a terminal coronary system may have a definite myocardial scar from a coronary occlusion, while another individual will be able to nourish that portion of the myocardium involved in coronary thrombosis through the Thebesian vessels. It may well be that this fact explains the puzzling discrepancies in some types of cases.

There is no treatment for coronary thrombosis except rest. Of course, there can be no absolute rest for the myocardium. Nitroglycerin usually does not work and morphia is required in a very large dosage. Many men use digitalis from the beginning but it has always seemed to me that the indication for digitalis was congestive heart failure. In cases of coronary thrombosis when congestive failure does occur, digitalis does not seem to be helpful and one would hardly expect that it would because the difficulty is in the heart muscle itself. In the congestive failure subsequent to coronary thrombosis, the diuretics, particularly the newer diuretics containing mercury have been the most valuable. In one case I have used a mercurial diuretic, salyrgan, once or twice a week for a period of three years with excellent results. If I am reasonably sure that a person has coronary thrombosis, I make him stay in bed for a month and then take another month getting up and about. This is a hardship and frequently does no good but it has always seemed to me that it was the only rational routine. My cases which have done the best have followed this procedure. In the storm and stress of the first few days, it is of the greatest importance to have a low calory and low roughage diet. The Karell diet has its place at this stage. I have been very much impressed by the value of this general dietary procedure in all forms of



angina pectoris and in the subsequent treatment of coronary thrombosis. We recognize not only the angina that comes after exercise or after emotional disturbance, made classical by John Hunter when he exclaimed that he was at the mercy of every rascal who chose to annoy him, but also the more common angina that comes on after eating. I have had more success in making these people comfortable with a low calory, low roughage diet with scrupulous care of their bowels by non-gas producing laxatives than by all the other therapeutic measures put together. The use of oxygen, preferably by an oxygen tent and most simply by the handy apparatus of Burgess of this city, is warmly recommended by some. While it is rational to minimize the exertion of respiration, I have not been persuaded of its value as a routine procedure.

After the attack is over and the patient is up and about, I try to be as severe as I can about exercise. I tell the patient that he can use his legs and feet to get him from here to there but he ought to give up walking for exercise and golf. A fair proportion of patients pay no heed to this advice so we are able to test the procedure by trial and error. I am still convinced of the wisdom of advising no exercise. I try to get the individual to give up driving a car but that is not always possible, particularly as the disease is so common among doctors who have to drive themselves. I believe in a low calory, low residue diet. I see no peculiar advantage in complete elimination of alcohol and tobacco or coffee. I recall one gentleman over seventy whose first question was whether his wife or his doctors had communicated with me. I told him they had not and he said, "I am consulting you entirely ethically with their complete permission but I do not want you to be prejudiced in any way." He then told me about an attack of coronary thrombosis that he had had some years before. He had had a very stormy time. He was very glad to be alive and to eschew alcohol, tobacco, coffee and the good things of the table which had been very dear to him. After a year or so he began to think that his wife and the doctors were in a conspiracy. Finally, he insisted upon my acting as a referee as to whether what seemed to him the sole remaining pleasures of life should continue to be kept from him. I readily agreed to a compromise which pleased him but did not please his wife. He had no further attacks of coronary thrombosis and died some three years later of cancer of the stomach.

We need to know a good deal more about coronary thrombosis before we can diagnosticate it with certainty and before we can give a reasonably accurate prognosis, particularly about subsequent attacks. We need to follow many cases through before we can say with conviction that such and such a type of attack of coronary thrombosis will be followed by other and fatal attacks. It seems to be true that the majority of people who have an attack of coronary thrombosis seem to get rid of angina as a symptom in that attack. They may suffer subsequently from congestive failure or sudden heart death but do not commonly have the symptoms of angina pectoris again. There are those that do not recover from their original attack of pain for months and even for years. In many such cases there is a large nervous element but it is possible to assume that some nerve endings, sympathetic if you will, get caught in the thrombotic process and are kept irritated. The common result of an attack of coronary thrombosis is that the individual sooner or later has congestive failure or sudden death. Occasionally an individual is found who has had a well authenticated case of coronary thrombosis who recovers and proceeds to lead a normal, vigorous life. My experience with these men is that they try to push the automobile out of the rut once too often and verify the earlier remark about them.

I have tried to bring before you a different picture of a clinical and pathological entity than you ordinarily receive. I have tried to color this picture by case reports and only regret that the mental picture of these cases which comes continually before my eyes cannot be shown to you. The electrocardiographic data in these cases, important although it is, does not seem to me to be vital. The most valuable time to make the diagnosis is in the first day and that is the time that the electrocardiogram is ordinarily negative. I do not think that this instrument of precision is essential to the diagnosis and treatment of coronary thrombosis.

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A profession has for its prime object the service it can render to humanity; reward or financial gain should be a subordinate consideration. The practice of medicine is a profession. In choosing this profession an individual assumes an obligation to conduct himself in accord with its ideals.

From the Code of Ethics of the A. M. A.



## THE RHODE ISLAND MEDICAL JOURNAL

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GEORGE L. YOUNG, M.D.

## JAMES WILLIAM LEECH, M.D.

The sudden and tragic death of Dr. James W. Leech has shocked the medical fraternity of Rhode Island; difficult as it is to realize, the stern and immutable fact remains.

Dr. Leech was an outstanding figure in the Rhode Island Medical Society of which he had for twenty years been Secretary, in which he was a tower of strength and wise counselor.

Those of us who were in closest contact with him socially and professionally can only too well appreciate our loss. Our sorrow for his family and our personal grief is beyond anything that can be expressed in words.

History may well write "Dr. James W. Leech, gentleman; alert and proficient in his profession, keen and analytical of mind, dignified and gracious in deportment and bearing, honored by all who knew him, mourned and sadly missed not only by his social acquaintances but by all medical Rhode Island."

And now, alas, to this, our genial and beloved friend, we bid a sad farewell.

F. N. B.

## APPRECIATION

By the death of Dr. James W. Leech the Rhode Island Medical Society has lost one of its most valuable members. No man in the state was better qualified to serve the Society and no man devoted time and strength more generously. Dr. Leech was preeminent in vision to realize the value of this Society, in ability to effectively support it, and public spirit to make the necessary sacrifice of energy. Let us hope that many others will emulate him in his efforts to raise our medical societies to a constantly higher level of performance.

W. H. B.

## PRAYER

AT DR. JAMES W. LEECH'S FUNERAL

October 9, 1936.

We give thanks to Thee, O God, for this, Thy servant, recalling all in him that made others love him so much. We bless Thee for all the goodness and truth, all the understanding and sympathy, all the friendship and kindness that has passed from his life into the lives of others, and has made the world richer for his presence.

Very many people are thinking of him today,—their hearts full of gratitude for what he has done for them and those dear to them; for what he, in his fine Christian manhood, was to them and to all who knew him. From the midst of his busy days, crowded over full of ministry to human need, he has left us. We shall all be grateful to Thee always for his life and work, and for our great privilege in knowing him. May the quality of spirit which was his enter more fully into our own lives and the life of our community. AMEN.

TO THE AMERICAN COLLEGE  
OF SURGEONS

On October 16, 1846, at the Massachusetts General Hospital in Boston, William Thomas Green Morton first demonstrated what we now know as Surgical Anesthesia. In the words of William Osler: "Before October 16, 1846, surgical anesthesia did not exist—within a few months it became a world-wide procedure; and the full credit for its introduction must be given to William Thomas Green Morton, who, on the date mentioned, demonstrated at the Massachusetts General Hospital, the simplicity and safety of ether anesthesia." That demonstration is the corner stone of the foundation of Modern Surgery. If it had failed of success, it is unlikely that the American College of Surgeons would now exist.

The October Bulletin of the American College of Surgeons states: "The art and science of anesthesia have rapidly advanced since 1844 and 1846 when Crawford Long and Daniel Morton made their historic discoveries." A misstatement humiliating to all of us, slighting the name of a great benefactor and a topic of professional pride. A comparable error has not been recorded since the

London Dictionary of Dates, in 1851, stated that "the discovery was first made by Mr. Thomas Morton of Boston." For ignorance of the most momentous event in the history of surgery, the Dictionary of Dates might be forgiven, but not the official publication of the world's greatest surgical society.

A. H. M.

## PROVIDENCE MEDICAL ASSOCIATION

### Minutes of the October Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William S. Streker, on Monday, October 5, 1936, at 8:45 P. M. The minutes of the last meeting were read and approved. Their applications having been approved by the Standing Committee the following were elected to membership:

Antonio Bellin  
Frederic Joseph Burns  
Morgan Cutts  
Thomas Joseph Dolan  
Anne Louise Lawton  
Edward Armando Ricci  
Edward Francis Ruhmann  
Jerome J. Ryan  
John Charles Sarafian  
Ralph Vincent Sullivan

The President read a letter from Dr. Franklin P. Loury of Newton, Mass., inviting all members interested to the meeting of the Academy of Physical Medicine in Boston on October 20, 21 and 22.

The President announced the appointment of Drs. Fred Coughlin and Joseph Hoey to act as an Obituary Committee for the late Dr. Edward Logan.

The first paper of the evening was read by Dr. William P. Buffum and was entitled "The Role of House Dust in Bronchial Asthma." Dr. Buffum reviewed briefly the current knowledge and the results of important investigations. He described the work and methods employed in the children's O. P. D. of the Rhode Island Hospital, and reported the results obtained in the treatment of 64 patients. Of these 64 patients, treated between January, 1932 and September, 1935, 14% were free from symptoms for one year or longer, 47%

were much improved, 31% were improved, and 8% were unimproved. The paper was discussed by Drs. Chafee and Fred Riley.

The second paper was by Dr. J. C. Corrigan of Fall River, Mass., and was entitled "The Incidence and Management of Anemia of Pregnancy." The speaker confined his remarks principally to the hypochronic anemia which is very common in pregnancy and occurs in 25 to 50% of patients. There are three important factors, just as in any such anemia occurring in non-pregnant patients: blood loss, deficient diet, and abnormal physiology of the gastro-intestinal tract. Treatment with adequate doses of iron is very effective. Dr. Corrigan referred to results obtained in giving iron as a prophylactic measure during the last trimester of pregnancy which demonstrated that 25% without iron developed anemia in contrast to 5% of those receiving iron. He also discussed the effects on the blood of infants born of anemic and non-anemic mothers. The paper was discussed by Drs. Hale, Langdon, and F. Riley.

The meeting adjourned at 10:15 P. M.

Attendance 92.

Collation was served.

Respectfully submitted,

HERMAN A. LAWSON, *Secretary*

## PAWTUCKET MEDICAL ASSOCIATION

### Minutes of the October Meeting

A regular meeting of the Pawtucket Medical Association was held at the Memorial Hospital on October 15, 1936. The President, Dr. W. J. Dufresne, presided. Twenty-two members and five guests attended. Dr. George W. Waterman presented an interesting paper on "Pituitrin—Its Uses and Abuses." A committee was appointed to draw up resolutions on the illness of Dr. Elliott A. Shaw. A committee was appointed to confer with the State Society in regard to some mutual agreement for collection of State Society dues in compliance with the new by-law of the Pawtucket Medical Association. Meeting adjourned at 10:15 P. M. Collation was served.

Respectfully submitted,

THAD. A. KROLICKI, M.D.,  
*Secretary.*

### Personal Notes

All other events are overshadowed by the unwelcome news of the death of Dr. James W. Leech, Vice President and long time Secretary of the Rhode Island Medical Society. At the Jane Brown Hospital, on the morning of October 6, while on his customary round of duty, he was suddenly stricken with a fatal angina. The only warning had been a slight similar attack six months before.

The funeral service was held at noon, Friday, October 9, at the Central Congregational Church in Providence, of which Dr. Leech was a Deacon. It was attended by a multitude of physicians, patients and friends. The service was conducted by Reverend Arthur H. Bradford, Minister of the Church, assisted by Miss Elizabeth Bugbee at the great organ. The ushers were Dr. F. M. Adams, Dr. E. S. Brackett, Dr. H. G. Calder, Dr. N. H. Gifford, Dr. B. H. Buxton and Mr. Edward A. Stockwell. The bearers were Dr. J. E. Donley, Dr. A. H. Ruggles, Dr. D. L. Richardson, Dr. W. O. Rice, Dr. H. G. Partridge, Dr. H. C. Messinger, Dr. Halsey DeWolf and Kirk Smith, Esq. The Rhode Island Medical Society was officially represented by Drs. Rocheleau, Hawkins, A. T. Jones, Wells, and W. S. Streker, and the Providence Medical Association by past and present officers; Drs. Kingman, Gornly, Donley, Buffum, and Chase.

The East Providence Physicians' Association was organized in January, 1936. Five meetings have been held. At the July meeting a Code of By-Laws was discussed and adopted. Objectives of the Association are a better understanding among the members and a much broader and more sympathetic understanding between local physicians and the various agencies with whom they deal.

Much attention has been given to local welfare problems, among them the following:

1. Proper examination of children before entering school.
2. General revision of the work of school physicians, in order to secure more satisfactory health supervision and avoid undue sacrifice of the physicians' time.
3. Arrangement of clinics for vaccination of children about to enter school.

4. Co-operation with State agencies in the conduction of those clinics in which said agencies are interested.

The officers are: Dr. James Moore, President; Dr. Theodore C. Hascall, Vice-President; Dr. Harrison F. Hyer, Secretary-Treasurer.

Sunday, October 4. At the dedication of the first buildings to be completed at the State Hospital for Mental Diseases at Howard, the principal address was delivered by his Excellency, Governor Theodore Francis Green. The introductory address was made by Rhode Island Medical Society President, Dr. John E. Donley, State Director of Public Welfare, in his usual pleasing and effective style. The exercises were held on the grounds in front of the new women employees dormitory, and opposite the new auditorium. An efficient loud speaker system enabled all the audience to readily listen to the speakers.

October 15. A regular meeting of the Friday Night Medical Club of Providence initiated the forty-ninth season of the activity of the club. Dr. J. Murray Beardsley, guest speaker, gave an interesting address on "Surgery of the Chest." Among many phases of his subject, he laid special stress on the value of artificial pneumothorax and partial thoracoplasty in treatment of pulmonary tuberculosis. The subject was thoroughly discussed.

October 19. At the meeting of the Thirty-four Medical Club, Dr. Francis H. Chaffee read an interesting paper on "Snake Venom." The subject was well discussed by members of the club.

October 20. The first lecture in the series arranged for the General Staff meetings of the Homeopathic Hospital of Rhode Island was given by Dr. Reginald Smithwick of the Massachusetts General Hospital. His subject was "Sympathectomy in Vascular Disease with Special Reference to Essential Hypertension."

October 28. At a regular meeting of the Jacobi Club, Dr. I. Gerber spoke on "X-Ray Treatment of Infections and other Inflammatory Processes."

October 29. The Rhode Island Medico-Legal Society held a regular Quarterly Meeting at the Medical Library. The speaker was Joseph H. Hagan, Chief of Division of Probation and Parole, State Department of Public Welfare; his subject, "Understanding the Delinquent."



Wednesday, October 14. An overcast sky did not dampen appreciably the enthusiasm at the Third Annual Golf Tournament of the Providence Medical Association and the Rhode Island Bar Association, which was played at the Wannamoissett Country Club. While the lawyers took the individual honors, the doctors won the tourney by 71 strokes and hold for another year the cup, put up for competition by James C. Collins, Esq. and Dr. Charles F. Gormly in 1934. At the dinner which followed the play was reviewed with the same spirit of generous rivalry which had characterized the tournament. Attendance, 61.

The score :

DOCTORS

Frank Honan .....	45	43	88
E. F. Burke .....	49	40	89
R. F. McCoart .....	44	45	89
B. Feinberg .....	43	47	90
C. O. Cooke .....	47	44	91
C. D. Sawyer .....	47	45	92
F. A. Webster .....	47	46	93
E. S. Brackett .....	49	46	95
R. R. Hunt .....	51	45	96
E. I. Seltzer .....	49	48	97
B. H. Buxton .....	45	52	97
David Freedman .....	51	46	97
E. G. Melvin .....	47	51	98
R. H. Whitmarsh .....	51	48	99
A. Archetti .....	47	53	100
J. M. Gibson .....	48	53	101
M. J. Nestor .....	53	48	101
V. J. Ryan .....	53	48	101
S. G. Lenzner .....	47	55	102
F. A. Coughlin .....	49	55	104
R. F. Hacking .....	55	54	109
W. C. Gordon .....	58	51	109
Dr. A. A. Barrows .....	53	56	109
N. A. Bolotow .....	58	52	110
M. Goldberger .....	51	59	110
J. C. O'Connell .....	57	54	111
W. P. Buffum .....	54	62	116
A. F. McAlpine .....	63	56	119
K. K. Gregory .....	63	59	122

LAWYERS

H. B. Tanner .....	40	43	83
E. T. Voight .....	43	41	84
R. M. Greenlaw .....	43	42	85
M. Addeo .....	43	44	87
R. C. Green, Jr. ....	47	42	89
F. A. Otis .....	44	44	88
J. B. Linehan .....	47	47	94
H. A. Clason .....	44	50	94
O. L. Heltzen .....	44	51	95
R. H. W. Hankins .....	45	51	96
D. H. Morrissey .....	44	53	97
W. V. S. Sumpter .....	50	49	99
L. S. Walling .....	47	56	103
Nathan M. Wright, Jr. ....	54	53	107
R. E. Allen .....	53	55	108
C. E. Wheeler .....	51	59	110
H. C. Hart .....	59	53	112
W. H. Strauss .....	56	57	113
L. A. Worrall .....	58	61	119
R. G. E. Hicks .....	62	64	126

Rhode Island Hospital Notes

Dr. Ralph Curtis Farrington, who completed his internship in December, 1935, and also interned for 6 months at the Providence Lying-In Hospital, has opened an office for general practice in Framingham, Mass.

On October 6th, Dr. Nathaniel Beaver, Night Superintendent since July 1st, 1935, accompanied by Mrs. Beaver, left for his former home in Walla Walla, Washington, where he intends to enter private practice. Dr. Beaver's internship terminated May 1st, 1935.

Dr. Jerome J. Ryan, Providence College, 1928, McGill Medical School, 1933, who completed his internship in September, 1935, has been substituting as Night Superintendent and House Physician for the past 4 months. Dr. Ryan has opened an office for practice of Medicine and Surgery at 209 Elmwood Avenue, Providence.

Dr. Richard Bruning completed his internship October 1st, 1936. Dr. and Mrs. Bruning have taken up residence in the Westminster Apartment, Westminster Avenue, Elizabeth, N. J. Dr. Bruning has opened his office in the same building.

Dr. Frederick Alton Webster, of Beverly, Mass., Harvard, 1927, and Tufts Medical School, 1933, became Night Superintendent at the R. I. H. on October 1st, 1936. Dr. Webster was an intern from September, 1933, to October, 1935. For the past year he has held a teaching fellowship at the Boston Dispensary.

Dr. Forrest Martin, intern at the R. I. H. from April, 1934, to May, 1936, after a visit to his home in Missouri, became an intern at the Massachusetts Eye and Ear Infirmary, Boston. Dr. Martin recently paid a short visit to the R. I. H.

Dr. Reginald Farrow, whose internship terminated in 1934, is at the Ruptured and Crippled Hospital in New York City. He recently paid a short visit to the R. I. H.

Dr. Byron L. Sweet, Yale Medical School, 1936, began internship on October 15th, 1936. Dr. Sweet's home is in Tarrytown, N. Y.

Dr. Heinz Lorge, for nine months Resident Cardiologist at the R. I. H., on October 1st entered St. Vincent's Hospital, Worcester, Mass., on a rotating internship.

Married: October 1. Dr. John Egoville to Miss Liboria Marceca, in Brooklyn, N. Y.

Born: October 11. To Dr. and Mrs. Gordon J. McCurdy, a son.

Among the large attendance at the 26th Annual Clinical Congress of the American College of Surgeons, Philadelphia, October 19-23, were Drs. J. L. Belliotti, N. A. Bolotow, E. S. Cameron, P. P. Chase, W. B. Cutts, W. P. Davis, R. DiLeone, F. S. Hale, A. H. Jackvony, L. C. Kingman, W. M. Muncy, J. C. O'Connell, V. J. Oddo, H. C. Pitts, E. M. Porter, T. F. Scanlon.

Drs. J. A. Hayward, A. H. Miller, and M. Saklad attended the co-operating Congress of Anesthetists and received Certificates of Fellowship in the International College of Anesthetists.

### RECENT BOOKS

**ALLERGY OF THE NOSE AND PARANASAL SINUSES**, a Monograph on the Subject of Allergy as Related to Otolaryngology, by French K. Hansel, M.D., M.S., Assistant Professor of Clinical Otolaryngology, Washington University School of Medicine; Fellow of the Association for the Study of Allergy, the Association of Resident and Ex-Resident Physicians of the Mayo Clinic, the American Laryngological, Rhinological and Otolological Society, and the American Academy of Ophthalmology and Otolaryngology. With fifty-eight text illustrations and three color plates. The C. V. Mosby Company, St. Louis, 1936. Price \$10.00.

This is a very excellent monograph on the subject of allergy as related to the field of otolaryngology. Since the birth of otolaryngology as a specialty some 50 or more years ago, attention has been directed chiefly to the anatomy, clinical aspects and perfection of operative procedures. However, about 5 years ago, Proetz pointed out that the results by surgical and non-surgical methods were far from satisfactory. It was apparent that there was a great need for better understanding of the physiology, biochemistry, pathology, immunology and experimental surgery of the paranasal sinuses, in order to establish better methods of diagnosis and treatment. In this book the author very carefully discusses the fundamental principles of physiology, biochemistry, bacteriology of the secretions, the cellular reactions of the tissues in allergy and in immunity, and the histopathology of allergy as they relate to the nose and paranasal sinuses.

He mentions the need of a thorough understanding of allergy for every otolaryngologist, in order that he may diagnose and successfully treat inflammatory diseases of the nose and sinuses. Many of these are allergy, and others are a combination of allergy and infection. The high incidence of allergic manifestations in the nose also suggests a basis for other accompanying symptoms.

Allergy is discussed in detail as to its origin and development. The fundamental clinical characteristics with var-

iations are considered, as well as methods of testing with the real value of each, in the experience of various groups of men.

Some space is given to bronchial asthma in its many phases. Methods of treatment are enumerated, especially the results of radical surgery of the sinuses and those treated more conservatively. A chapter is given on the part bronchoscopy plays in asthma.

A summary is made of the great importance of the part played by allergy among the diseases of the upper and lower respiratory tracts in children in its relation to both otolaryngological and pediatric conditions, in order to establish a diagnosis.

A chapter is devoted to allergy and immunity in ophthalmology. The treatment of retro-bulbar neuritis by the intravenous injection of triple typhoid vaccine is discussed by Benedict. He believes that any operation on the sinuses is unwarranted unless evidence of suppurative disease is established.

Finally the treatment of allergy and hay fever is given in great detail, condemning certain methods and enlarging on the correct ones. A number of illustrative cases of clinical allergy are reviewed to point out some of the principles of diagnosis and treatment.

There are many quotations from the literature and an extensive bibliography.

L. C. H.

**SYNOPSIS OF DISEASES OF THE HEART AND ARTERIES.** By George R. Hermann, M.D., Ph.D., Professor of Clinical Medicine, University of Texas. Pp. 344 with 88 Text Illustrations and 3 Color Plates. Cloth, \$4.00. The C. V. Mosby Company, St. Louis, 1936.

In the preface the author, an outstanding teacher and investigator, states that "This synopsis is an attempt to provide an acceptable indexed epitome of the principles and modern conceptions of cardiologic practice. It is in no sense of the word a book for the specialist."

In general, the author has succeeded in his purpose admirably. The book, 328 pages in length, contains almost all the practical information found in most larger texts. Clear, up-to-date information concerning history taking, physical examination and the value of various laboratory procedures is afforded. Ample discussion of differential diagnosis, prognosis and treatment should make the book of value to the practitioner as a ready source of useful information.

The book is compact and is adequately though not profusely illustrated. The presentation of the subject matter is clear and most of the recent additions to diagnosis and therapy in heart disease are described.

One minor criticism might be that no mention whatsoever is made of the heart failure associated with beri-beri and arteriovenous aneurysm, both conditions, though rare, offering the possibility of complete cure. However, the merits of the book are so numerous that it can be recommended without reservation.

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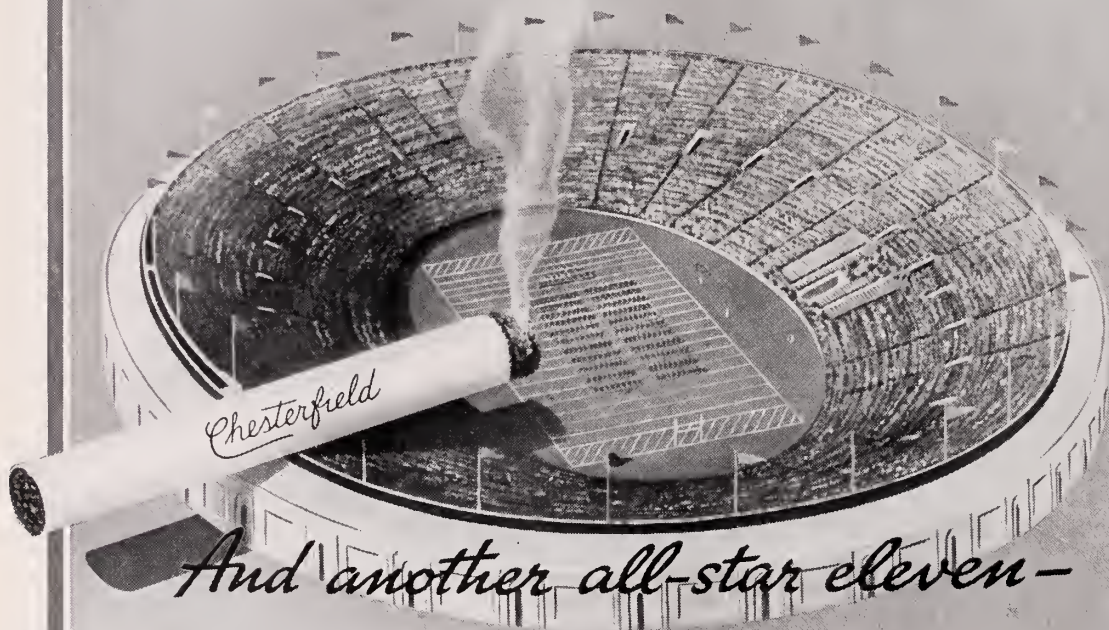
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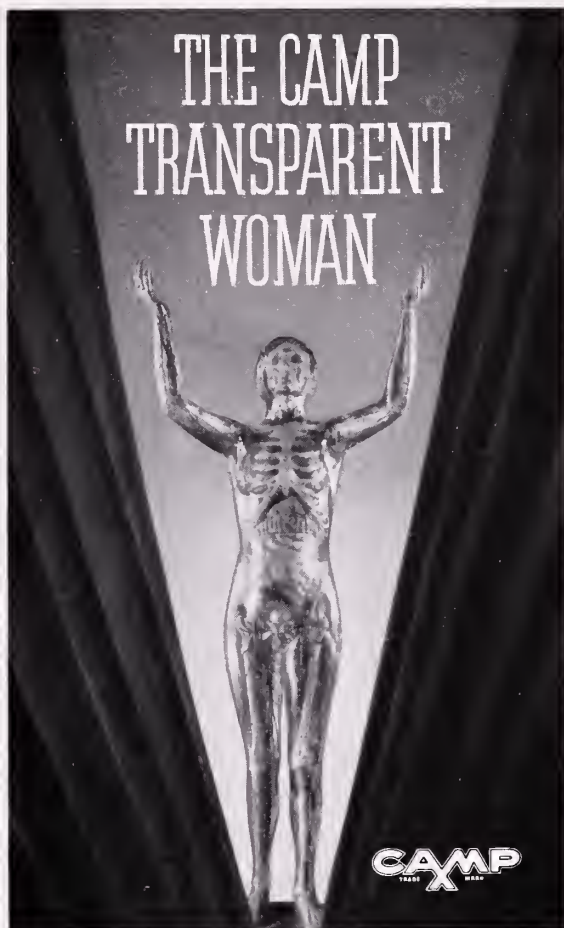
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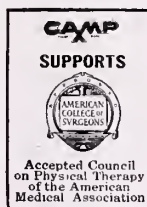
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DECEMBER, 1936

## *In This Number*

Early Treatment of the Insane in Rhode Island, by Dr. Arthur H. Harrington

Bedside Manner and Psychiatry, by Dr. Harold W. Williams

The Schilling Hemogram in Appendicitis, by Dr. Henri E. Gauthier  
(Concluded)

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Am. J. Pub. Health,  
25:1334, Dec. 1935

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Since Goldberger's pronouncement, considerable research has been devoted to resolution of the vitamin B complex and, what is equally important, to testing the specificity of vitamin G in the cure of human pellagra (2).

The findings in the laboratory and clinic have not, in some respects, been entirely in accord (3).

As reports of further investigations appeared in the literature, it became clear that the vitamin B complex had been aptly named. At one time claims were made for the existence of as many as eight factors in this complex (4).

While later work has reduced this number, we know today that what has been consid-

ered in the past as vitamin G is, in reality, a combination of several factors. A relation between experimental cataract and vitamin G has been described and, recently, another associated factor was postulated (5).

The significance of these individual factors in human nutrition has not as yet been established. However, regardless of this fact, students of nutrition are agreed that we must provide for the inclusion of so-called vitamin G—admittedly a complex—in the daily dietary. It is also obvious that until more is known about the individual components of the complex, we must continue to depend upon present day bioassay methods to determine the "vitamin G" potencies of foods.

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(1) 1926. U. S. Pub. Health Report, 41, 297.

(2) 1934. Am. J. Med. Sci., 187, 512.

1935. J. Am. Med. Assoc., 104, 1377.

(3) 1932. J. Am. Med. Assoc., 99, 120.

(4) 1933. J. Nutrition, 6, 559.

(5) 1934. J. Nutrition, 7, 97.

1936. Science, 83, 17.

(6) 1932. J. Nutrition, 5, 307.

1932. Ind. Eng. Chem., 24, 457.

(7) 1932. J. Am. Med. Assoc., 99, 95.

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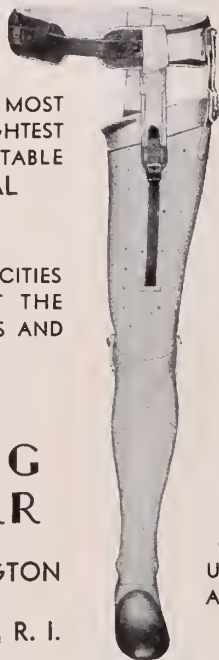
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of course, must do the pumping.

You've often heard people say, "I must go on a diet". . . or . . . "I must go in for some strenuous exercise and work this fat off." But either course may be dangerous. Unwise dieting frequently substitutes, for the evil of obesity, the evil of undernourishment. Strenuous exercise obviously adds to the burden on an already overburdened heart.

There is only one sane thing for any overweight person to do. That is to see his doctor. Your doctor can determine whether obesity is caused by some fundamental physical disorder—such as glandular derangements—or whether it is the result of unwise eating combined with insufficient exercise.

Diet is a form of treatment; and it

should *never* be prescribed by anyone but a physician. The doctor's knowledge is necessary in determining what foods, and how much, may be eaten—what diet will be safe and pleasant, yet effective, in removing unneeded, unsightly fat.

If you are overweight, or in doubt about what weight you should maintain, do something about it. But don't let well-meaning friends, or the fellow you met while on vacation, prescribe for you. See your doctor.

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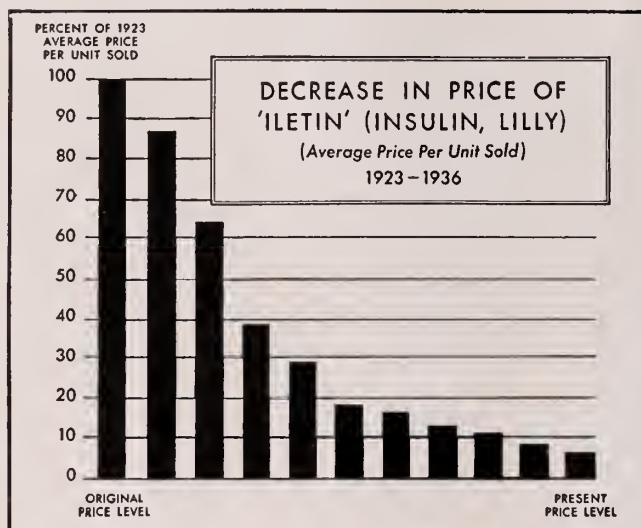




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## THE EARLY TREATMENT OF THE INSANE IN RHODE ISLAND\*

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The history of the treatment of the insane in Rhode Island has two phases; the one being the preinstitutional stage, the other coincident with the beginning of institutional care and developing with it. The first takes us back to our earliest colonial times. Let us consider the first hundred years of our existence as an organized community, from the year 1636. There were insane people in the colony, who if they had friends or means, were taken care of comfortably. But there were those without any such resources in the towns, there were those wandering about who did not seem to belong anywhere; such were neglected. The homeless or strangers in need were pushed from town to town and even without the borders of the state.

This was a period of superstition, ignorance and fear in viewing the insane. Some regarded insanity as a retribution for sin; others regarded it as a misdemeanor to have a disordered mind, and to require care put the person in the light of a criminal. So not only did neglect attend the insane, but their disposition was carried out in ways which were cruel and inhumane even into the time of those who are still living. Traces of these conditions still exist. The concept of an insane person as a sick individual, in need of the best kind of care of a medical nature, has had a slow growth in the minds of many people. There are others who regard insanity as a disgrace, who try to hide the condition of such member of the family from the public, and the opportunity for early care is lost. In the commitment of a person to this very hospital, if sent here by order of a court, the process is based on the form of criminal procedure. Such person is charged with being insane and the traditional words are still retained within the mittimus, namely, "with force and arms" as descriptive of the persons behavior, and this about a person whose only misfortune is

that he or she is sick and in need of medical treatment.

But in these early times there were those with an intelligent view of this form of sickness and who were kindly disposed in their treatment. The very first record of such an instance in the history of Rhode Island is that of a communication in 1651, addressed to the Providence Town Council by no less a person than Roger Williams, calling attention to "a distracted woman," a Mrs. Weston, appealing to the Council to make provision for her, "remembering," he says, "we know not how soon we ourselves may be deprived of our reason, except mercy from the God of mercy prevent it."

From this time on for the next fifty years, there are similar records of the town council being requested to take charge of distracted persons and their estates. Towards the end of the first hundred years, towns were authorized by the General Assembly to build "houses of correction for vagrants and to keep mad persons in."

A little later, in 1742, a law was passed by the General Assembly giving into the hands of the town councils the care of insane persons and their estates, or power to appoint guardians for them. This latter measure was the first formal recognition by Rhode Island of its responsibility for these persons. It was the first forward move in that direction. It was the germ of the beginning of public provision for the insane.

In the latter part of the 18th century was inaugurated the beginning of the movement which ushered in the period of humane treatment of patients. In Paris, France, a physician, Philippe Pinel, released patients from the chains in which, in some instances, they had been confined for years, and there was no untoward result. This idea slowly gained headway in England, in this country, and elsewhere. Today there is hardly an up-to-date hospital and properly trained staff which make use of mechanical restraints in any form whatever.

Early in the 19th century there came a period, known as the Period of Awakening, when private and a few state hospitals for the insane were opened. The first in this state was Dexter Asylum, not intended as a place for the insane, but it came

\*An address delivered at the Fall Meeting of the Rhode Island Medical Society, held at the State Hospital for Mental Diseases at Howard, September 3, 1936.

about that about one-third of the inmates were of this class. The condition was that they must be persons who belonged in Providence.

The introduction of humane treatment was followed by what has been named the Philanthropic Period. A remarkable woman, Dorothea Lynde Dix, had much to do with this period. She came into Rhode Island shortly after 1840 and visited all the almshouses and wherever else any insane person was confined. She gathered all the facts relating to those whom she found in these places. In some instances she found them in chains, confined in outbuildings, in great neglect. Certain instances which she related were published in the *Providence Journal*. One was described as "An astonishing Tenacity of Life." The victim, one Abram Simmons, lived in a structure built of stone, about eight feet square, where he was confined in chains. In this enclosure, water from condensation in severe cold weather would sometimes freeze on the walls. After disclosing these conditions she appealed to the citizens of Rhode Island to contribute to a fund that had been devised by the will of Nicholas Brown for an insane asylum. The amount promptly contributed insured the erection of Butler Hospital.

It was at Butler Hospital that the State entered into an arrangement which has continued to this day, for the care of some of its mental cases. As hospitals began to be established in neighboring states, Rhode Island began to board some of its cases in these hospitals. Patients were cared for at the expense of Rhode Island in Worcester Asylum, the Taunton Hospital, the Connecticut State Hospital at Middletown, and the Brattleboro Retreat in Vermont.

In 1850 Thomas R. Hazard was appointed by the General Assembly to examine the conditions of persons confined in almshouses and in the towns and rural districts. His report tallied with that made by Miss Dix a few years earlier. Although a regulation was passed that such places should receive stated inspections to prevent such conditions, this does not appear to have been carried out with consistency.

In 1867 a resolution was introduced into the General Assembly proposing that the state should purchase land on which to build an asylum for the insane. A committee was appointed to report at the next session. At the next session the resolution



Figure 1. Exterior of one of several one-story wood structures put up in 1869 at Howard, which were the beginning of the State Hospital for Mental Diseases.

was changed so as to include, in addition to an asylum, a state almshouse and a house of correction. In the session of 1869 this proposition was adopted. Land was purchased in Cranston, on the site now named Howard, and in the next few years the Reform Schools and the State Prison were also located there. No time was lost in erecting one story wood buildings for the insane. In 1870 the institution was opened under the name of State Asylum for the Chronic Insane. The Board of State Charities and Corrections was created to administer all of the different institutions mentioned as they were developed. It was intended that the wooden structures should be temporary, but the temporary period extended for more than forty years, all of these buildings being used during that time.

In 1912, as the old buildings were fast falling into decay, their replacement with new and modern structures was developing on the advancing lines of treatment of mental cases. Changing sentiment concerning these patients is indicated by the changes in the name of the institution; first, the Asylum for the Insane, next, the State Hospital for the Insane, and the present name, the State Hospital for Mental Diseases.

The above account takes up the condition of persons with mental disease from our earliest colonial times and uses the early, crude conditions as a background for a historical contrast with the stage of development at which we have begun to arrive since the opening of the present century. The year 1900 marks roughly the beginning of the scientific treatment of mental disease.





Figure 2. Interior of the structure shown in Figure 1. A ward 200 by 16 feet, 17 feet from floor to ceiling, monitor windows 14 feet from floor to sills, with one window at extreme end. Patients were in a sort of pit. Six by nine foot single rooms opened from the ward. Each of these had a single grated window containing six square feet of glass.

## BEDSIDE MANNER AND PSYCHIATRY\*

HAROLD W. WILLIAMS, M.D.

*Clinical Director of the State Hospital at Howard, R. I.*

The expression "bedside manner" brings to mind memories of the family physician. The bedside manner was his hall mark. By its means he gained the confidence of the patient, established rapport with the individual and gained entrance into the inner circle of the family group. In this exalted position, he counseled the group and the individuals composing it with respect to the problems arising out of their endeavors to adjust to life. The family physician recognized that the sphere of his activity encompassed all aspects of the human being who sought his aid. His concern was not restricted to the body or to any particular part of which the patient happened to complain. He did not cleave the individual into two distinct and separate parts, a body and a mind, or work on the premise that the individual, the organism as a whole, represented the sum achieved by adding up all the parts. He perceived lying there in the bed before him a human being, not just a hob-nailed liver, an ulcer, a consumptive lung.

To be sure, the family physician did not perceive the parts with any degree of accuracy. But the physicians who followed were enabled to do so by

virtue of great strides made in physiology, bacteriology, chemistry and allied sciences. And as they followed these bypaths, they quickly divested themselves of the art of medicine and cloaked themselves in what was regarded as pure science, intent on minute study of parts of the body. They lost sight of the whole in their feverish concentration on the parts. To use an analogy, they limited themselves to the study of grammar exclusively—content to diagram sentences, break them up into subjects, predicates, objects and modifying clauses, believing that the sum of the parts constituted the whole. Literature, wherein the whole sentence, paragraph or book is of importance, held no interest for them. Their attention was focused on the morbid parts, the heart, lungs, or digestive tract so that they have only casually noted the influence of the pathological part on the whole person or the pathological person on the part.

That physicians have wandered into this bypath is now being recognized. The bedside manner is being revalued. Recently Psychiatry itself has seen the importance of the total personality. This movement has been most pronounced in American psychiatry. Much of its impetus has been derived from the teachings of Adolf Meyer, Professor of Psychiatry at Johns Hopkins. Meyer<sup>1</sup> writes that what is of importance to us is the activity and behavior of the total organism or individual as opposed to the activity of single detachable organs. Or as Ritter,<sup>2</sup> a biologist, expresses it: "The organism in its totality is as essential to an explanation of its elements as its elements are to an explanation of the organism." Basis for such an attitude is to be found in biological considerations and clinical experience.

The biological considerations center about the principle of integration. The one celled organism, the amoeba, is an individual, a unit. In it exist most of the functions of higher animal life. As we ascend the evolutionary scale, these functions are taken over by specialized organs or systems but these organs are not, in the economy of life, permitted autonomy. Their functioning is subject to the will of the organism as a whole, inhibited or stimulated as the needs of that organism acting as a unit dictate.

This principle is expressed in the central nervous system. We speak of functional levels. There is the level of the simple reflex arc, mediated through a structural unit of but one segment of the spinal cord. However, the simple reflex arc is subject to

\*Read before the Quarterly Meeting of the Rhode Island Medical Society, at the State Hospital for Mental Diseases at Howard, September 3, 1936.

the influence of the intersegmental reflexes. These in turn are subject to the whims of medullary levels or hypothalamic levels and so on until we reach the final co-ordinating and integrating level, that of the cerebral cortex. Hughling's Jackson<sup>3</sup> spoke of the central nervous system as a hierarchy of levels—Remove the influence of one of the higher levels, then, the next lower level takes control. Neuro-anatomists and physiologists today recognize the correctness of this hypothesis and utilize it as a working basis. They acknowledge that if a part or parts had automatism, chaos would result. In the gastro-intestinal tract, should the salivary gland, the gastric mucosa, the gall bladder and the pancreas express their individualism without regard to the remaining component parts of the tract, digestion could not be as orderly a process as it is. And just as the gastro-intestinal tract is integrated for certain functions, so are other body systems. They, however, are in turn integrated to form a final unit, the organism as a whole. Since individuals, not livers, hearts, or digestive tracts, walk into our offices asking for help, it would seem we are under no little obligation to recognize and apply the principle of integration.

Substantiation for this principle is rapidly accumulating clinically. Dunbar,<sup>4</sup> in his recent bibliography pertaining to "Emotions and Bodily Changes," states that several volumes would be required to cover the field adequately. With Cannon's treatise on "Body Changes in Pain, Hunger, Fear and Rage" we are familiar. Observation of little every day occurrences in ourselves and intimates would offer evidence of the role of emotional tension on the functioning of parts of our body. We are all willing to acknowledge that the complaints of diarrhea and frequency of urination of a student about to face an examination are to be attributed to the emotional tension arising from the examination situation. How we express tension is purely an individualistic matter determined by our particular life history. Many express it through the medium of the gastro-intestinal tract. The obviousness of this has been impressed upon me since medical school days. In my work in pathology often have been the times that I have hunted through a section of a surgical specimen seeking justification for its removal. A few lymphocytes clustered about a blood vessel in the adventitia of an appendix or a slightly thickened sub-mucosa have sufficed. As I would do so, I have at the same

time tried to envisage the total personality of the individual whose appendix it so recently was, and what I seemed to see was an individual who was giving expression to his problems of adjustment to this world of ours through his gastro-intestinal tract, of a physician who lacked an adequate bedside manner, who envisaged only a morphologically altered appendix. A few well-directed, common-sense questions might well have revealed tension and concern and resulted in aiding that individual in a more substantial way in his quest for health.

Stiller,<sup>5</sup> writing as early as 1884, stated that some 60 to 70% of all patients who consulted him suffered from nervous dyspepsia—many of us recognize the accuracy of this observation but are content with dismissal therapy. Such cases do not present what we term cold scientific fact. Facts must be tangible in the literal sense of the word. This is not entirely in accord with a biological approach to life. Guided by such an approach, Meyer<sup>6</sup> defines fact as anything the presence or absence of which as a factor in a formulated situation makes a difference.

To illustrate with a case: This individual suffers considerably from gas which accumulates only at intervals and then persists for variable periods of time. The onset of these attacks is timed with periods of emotional tension. Acquainting the patient with these observations, indicating how that tension might better be expended, relieved the patient of his symptoms. The presence of tension was a factor in the formulated situation. Without tension the complaint would not have developed. The tension, then, is a fact in Meyer's definition of the word and as such is worthy of the attention of sober, biologically trained persons.

That such facts exist in cases of hyperthyroidism seems to be fairly well established. Katzenelbogen and Luton<sup>7</sup> report as an example the case of a 24-year-old girl who presented local and general symptoms of hyperthyroidism. Her history of the past six months appeared to substantiate the diagnosis of hyperthyroidism. The pulse was high, the basal metabolic rate +63. After two weeks of sedative hydrotherapy and discussion of her personality difficulties, the pulse rate came down to 70 and her basal metabolic rate to a -4. It became obvious that her original condition was that of a tension state with participation of the thyroid gland.

Katzenelbogen gives among his conclusions the following: Studies of life histories of patients hav-



ing symptoms of dysfunction of the autonomic nervous system and of hyperthyroidism bring out the presence of more or less serious psychobiological implications. Such studies strongly suggest, first, that there is a close interrelationship between the psychobiological implications and the malfunction of both the thyroid gland and the autonomic nervous system; second, that these pathologic manifestations have a common origin which may be traced to a combination of personality background, including a predisposition to hyperthyroidism, and injurious situational conditions.

"I can't sleep, doctor" is a frequent complaint that for relief requires attention to the total personality. We may indiscriminately prescribe sedatives, or we may give attention to the cause of the sleeplessness. Recently, we admitted a woman whose fears associated with pregnancy came to the surface as serious symptoms soon after her delivery. Her sleeplessness persisted in spite of great quantities of sedative. In fear states, sedatives show as little result as efforts to fill a bottomless pit. Prescription of sedatives without recognition of an underlying depression results frequently in toxic delirium due to the drugs. Feeling unwanted in her daughter's home, this patient became depressed and, as usually follows, sleepless. Her complaint to her physician was sleeplessness. Sedatives were prescribed. She used the prescription as another might use alcohol to drown her sorrows. She came to us in a drug delirium.

Skin eruptions may unfold much drama for the physician sensitized to regarding the individual as a whole. Muncie's reported case<sup>8</sup> is illustrative: A woman in the fifties came to the hospital with a rather generalized cutaneous eruption, diagnosed as atypical lichen planus. Supportive treatment was helpful, but things went along slowly and variations seemed to be linked with the visits of her son. The patient blamed her condition on the fatigue caused by a long automobile ride over the mountains, through fog and rain. The facts were briefly: The patient's adored only son announced his intention of marrying a woman totally unacceptable to her. He was adamant against her protestations. Finally the patient and he took an automobile trip ostensibly to visit a relative, whom the patient hoped to enlist in her campaign against the marriage. This relative immediately sided with the son, and it was on the homeward trip, full of disappointment and tense at losing out, that the eruption began to

appear. Her condition rapidly became worse and finally forced hospitalization. She never gave up her warfare against the prospective daughter-in-law, and finally while in the hospital saw the beginnings of capitulation from her son. With this turn of events, the skin began to clear.

And so one might continue on throughout the gamut of medical symptom-complexes. It suffices if you recognize that personality disorders may simulate many disease entities. In that respect they are like syphilis. It may be equally said, to know the organism as a whole is to know medicine. Since physicians are concerned with man, a biological entity, they are under obligation to look upon him as a biological being. Failure to do so fattens the horde of cultists and quacks. They exist on medicine's indifference to the application of biological training to the organism as a whole. Such application does not necessitate special knowledge of psychiatric terminology but first and foremost, application of common sense. Psychiatry, as I conceive of it, is basically common sense with a dash of critical common sense added thereto. And common sense is not an attribute of the few.

May I in conclusion quote from Dunbar's book,<sup>4</sup> "Emotions and Bodily Changes." He writes that four hundred years B. C., Socrates came back from army service to report to his Greek countrymen that in one respect the barbarian Thracians were in advance of Greek civilization: They knew that the body could not be cured without the mind. "This," he continued, "is the reason why the cure of many diseases is unknown to the physicians of Hellas, because they are ignorant of the whole."

#### REFERENCES

1. Meyer, Adolf: Objective Psychobiology or Psychobiology with Subordination of the Medically Useless Contrast of Mental and Physical, Journal of the American Medical Association, 65:860, 1915 (Sept. 4).
2. Ritter, William Emerson: The Unity of the Organism or the Organismal Conception of Life, Boston: Badger, 1919.
3. Quoted from Foerster, O.: The Motor Cortex in Man in the Light of Hughling's Jackson's Doctrines. Brain, 59:135, 1936.
4. Dunbar, H. Flanders: Emotions and Bodily Changes, Columbia University Press, New York, 1935.
5. Quoted from Dreyfus, George L.: Ueber nervose Dyspepsie. Psychiatrische Untersuchungen aus der Medizinischen Klinik zu Heidelberg Jena, Fischer, 1903.
6. Meyer, Adolf: Summary of Symposium, American Journal of Psychiatry, 92:357, 1935.
7. Katzenelbogen, S. and Luton, F. H.: Hyperthyroidism and Psychobiological Reactions, American Journal of Psychiatry, 91:969, 1935.
8. Muncie, Wendell: The Hospital Psychiatric Consultant, Modern Hospital, 43:41, 1934.



THE SCHILLING HEMOGRAM IN  
APPENDICITIS

HENRI E. GAUTHIER, M.D.  
34 HAMLET AVENUE, WOONSOCKET, R. I.

(Continued from Page 176)

Table V  
ACUTE GANGRENOUS APPENDICITIS  
Female: Age 7 Years  
NEUTROPHILES

Date	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Mon.	Lym.	% Neut.	N.I.
4- 8-36									
Op.	16,500	0	3	7	81	5	4	91	8
4- 9-36	22,600	0	4	14	77	0	5	95	4
4-12-36	14,400	6	0	10	66	11	13	76	6.6
4-14-36	18,000	0	0	14	76	0	10	90	5
4-16-36	16,200	0	0	6	76	6	12	82	12
4-18-36	8,400	0	1	1	70	9	19	72	35
4-20-36	10,500	0	2	4	77	3	14	83	12
4-22-36	7,500	1	2	2	60	6	29	64	15
4-23-36	Discharged								

Table 5 is presented to illustrate the course of an acute gangrenous appendicitis non-perforated. On the day of admission and before operation, the white blood cells numbered 16,500, there were no eosinophiles, juveniles were present 3%, stabs 7%, segments 81% for a total neutrophilic count of 91% and a nuclear index of 8. Monocytes were normal while the lymphocytes were decreased. A diagnosis was made of acute gangrenous appendicitis with peritoneal irritation and probable perforation. At operation an acute gangrenous appendix was found, difficult to deliver for fear of rupture and just as it was clamped at its base the tip perforated, but fortunately enough, the pus oozed onto a sponge. The day after operation, though the white blood cell count was higher and a greater shift to the left and a higher percentage of neutrophiles found, this was interpreted as a favorable reaction to infection. The healing phase in this case is noticeable but is not as marked as will be demonstrated in other cases.

Table VI  
PERFORATED APPENDICES—GENERAL PERITONITIS  
NEUTROPHILES

Case	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Lym.	Mon.	% Neut.	N.I.
1	15,000			25	67	2	6	92	2.6
2	18,000(Myelo.1)	3	7	83	6			94	7.5
3	13,100	4	10	60	14	2		80	3
4	15,400		4	11	72	13		87	4.8
5	13,800			8	81	5	6	89	10.1
6	20,500		2	8	83	7		93	8.3
7	14,500			18	73	6	3	91	4
8	14,500		9	14	71	4	2	94	3
9	20,000		2	30	64			96	2
10	26,000		6	41	48		1	95	1
11	22,400		2	6	80	12		88	10
12	13,000			18	67	6	9	85	3.6
13	19,700	2	2	8	86	2		96	8.6
14	16,800		3	6	69	21	1	78	7.6
15	12,000		2	13	75	6	4	90	5
16	10,800	1	2	10	73	5	9	83	6
17	12,000		12	3	73	12		88	4.8
18	14,600			14	72	7	7	86	5.1
19	8,500			50	33	13	4	83	—0
20	15,200		8	55	26	7	4	89	—0
Avg.	15,790	.35	2.2	17.6	67.8	7.6	3.1	88.8	4.8
Range	8,500 26,000	0-4	0-12	3-55	19-86	0-21	0-9	78-96	0-10.1

In table 6, twenty perforated appendices with general peritonitis are considered. The average in this group is lower for the white blood cells, juveniles, segments and lymphocytes than was found to exist in the non-perforated gangrenous appendices and the acute appendices. A considerable increase in the stab nuclears is met with while the monocytes are only slightly higher. The neutrophilic percentage is lower than in the non-perforated appendices but is on a level with the average found in the acute appendices. The nuclear index is slightly higher than in the gangrenous non-perforated appendices. These observations are remindful of the presence of a more constant degenerative shift. The stabs reach a high of 55%. Remarkable in this group is Case No. 19.

Table VII  
ACUTE GANGRENOUS APPENDICITIS—GENERAL  
PERITONITIS  
Male: Age 5 Years  
NEUTROPHILES

Date	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Mon.	Lym.	% Neut.	N.I.
4-17-36									
Op.	8,500	0	0	50	33	4	13	83	—0
4-18-36	16,500	0	2	35	39	13	11	76	1.0
4-20-36	18,000			35	52	5	8	87	1.5
4-22-36	20,000	0		28	53	8	11	81	1.8
4-24-36	25,000	0		29	56	5	10	85	1.9
4-27-36	20,800	0		13	52	14	21	65	4
4-29-36	18,000	0	1	13	53	10	23	67	3.7
5- 1-36	8,500	0		9	39	15	37	48	4
5- 3-36	14,000	1	4	2	44	13	36	50	7
5- 4-36	Out of bed								
5- 6-36	12,000	2	0	2	54	10	32	56	37
5- 7-36	Discharged								

A male child, five years of age, had been sick several days prior to his admission to the hospital. Seen by a local physician who recognized the seriousness of the illness, arrangements were made at once for his hospitalization and he was referred for operation. The blood count was not encouraging, there being only 8,500 white blood cells. There was a severe degenerative shift with the stabs numbering 50 and the segments 33 for a neutrophilic percentage of 83. The nuclear index was minus zero. In itself this meant a very serious condition and the outlook seemed hopeless. The operation was performed and for the first twenty-four hours the child did better than was expected. The following day the white blood cells had doubled in number, there was a decrease in the number of stabs and a slight increase in the segments. A marked increase in the monocytes was not an encouraging sign. The lymphocytes had decreased slightly and the percentage of the neutrophiles was lower. Both of these conditions showed difficulty on the part of the patient to react, yet a rise in the nuclear index was comforting as was also the appearance of two juveniles, meaning an attempt

at rejuvenation or regeneration. There were a greater number of encouraging signs; an increase in the white blood cells, the appearance of the juveniles, a decrease in the number of stabs and an increase in the nuclear index. Two days later the case seemed still more hopeful, the white blood cells had increased to 18,000, the stabs remained at 35, while the segments increased to 52, for a neutrophilic percentage of 87 and a nuclear index slightly increased at 1.5. The monocytes and the lymphocytes had slightly decreased. After the fifth post-operative day, the progress was steady. The stabs decreased gradually, the segments remained within normal limits for a child of five years of age, the monocytes kept at a higher than normal average, but the lymphocytes exhibited a true healing phase. The neutrophiles returned to normal as did the nuclear index. On the seventeenth post-operative day, the temperature having been normal for three days, the child was allowed to be out of bed and was discharged on the twentieth post-operative day, the wound being practically healed.

Table VIII

ACUTE GANGRENOUS APPENDICITIS—GENERAL PERITONITIS  
Male: Age 9 Years  
NEUTROPHILES

Date	W.B.C.	Eos.	Ju.	Stabs.	Seg.	Mon.	Lym.	% Neut.	N.I.
4- 6-36									
Op.	15,000	0	8	55	26	4	7	89	—0
4- 7-36	13,500	0	6	27	61	0	6	94	1
4- 9-36	22,000	0	2	16	72	3	7	90	3
4-12-36	35,000	0	3	5	87	0	5	95	10
4-14-36	36,000	0	2	14	69	9	6	85	4
4-16-36	28,400	0	0	8	79	7	6	87	9
4-18-36	26,400	0	0	10	73	11	6	83	7
4-20-36	22,000	0	0	10	70	11	9	80	7
4-22-36	26,000	0	0	11	70	11	8	81	6.3
4-24-36	28,000	1	0	24	60	3	12	84	2
4-27-36	14,000	0	0	3	68	8	21	71	22
4-29-36	12,500	0	0	9	74	7	10	83	8
5- 1-36	14,200	2	2	2	74	2	18	78	18
5- 4-36	13,500	0	1	1	67	4	27	69	33
5- 6-36	16,000	3	1	2	65	6	24	67	32
5- 7-36	Discharged								

Table 8 is another illustration of the course of an acute gangrenous appendicitis with general peritonitis occurring in a male child of nine years of age. The onset in this case dated back to six days before admission to the hospital. He appeared more seriously ill than the former and his blood count before operation was indicative of an extremely doubtful result. The operation was performed as hurriedly as possible and in spite of this stimulation had to be resorted to during the operation. The white blood cell count was 15,000, the juveniles numbered 8, the stabs 55, the segments 26, making a neutrophilic count of 89% and a nuclear index of —0. The monocytes and the lymphocytes were uninformative. In the presence

of such a severe shift to the left, his condition was none other than agonal. For the next six days his condition was poor and it was doubtful that he would ever recover, but with an increasing white blood cell count and a decreasing shift to the left it appeared that he might have a chance. After the eighth postoperative day the blood examination became more and more encouraging except for a slight disturbance on the eighteenth postoperative day when the stabs suddenly increased to 24. He was allowed out of bed on the twenty-eighth post-operative day and was discharged thirty-one days after the operation. The white blood cell count was still high at 16,000 but the differential had returned to normal; the eosinophiles were present 3%; there were only 2 stabs; 65 segments; 6 monocytes and the lymphocytes were now 24.

Table IX

APPENDICES WITH LOCALIZED ABSCESS  
NEUTROPHILES

Case	W.B.C.	Eos.	Ju.	Bds.	Seg.	Lymph.	Mon.	% Neut.	N.I.
1	36,000	.....	5	15	75	.....	5	95	3.7
2	14,500	.....	5	1	78	15	1	84	13
3	14,000	.....	2	3	78	12	5	83	15.6
4	25,400	.....	5	17	76	2	.....	98	3.4
5	22,800	.....	1	1	80	18	.....	82	40
6	18,400	.....	5	15	79	1	.....	99	3.9
7	14,400	.....	2	4	76	13	5	82	12.6
8	20,000	3	6	7	77	7	.....	90	5.9
9	12,500	.....	5	15	64	10	6	84	3.2
10	14,000	.....	2	15	76	5	2	93	4.4
Avg.	19,200	0.3	3.8	9.3	75.9	8.3	2.4	89.0	10.5
Range	12,500 36,000	0-3	1-6	1-17	64-80	0-18	0-6	82-99	3.2-40

Table 9 is devoted to appendices with localized abscess. In this group ten cases are collected and it is found that the white blood cell count has an average higher than in any of the preceding groups and furthermore that the range is maintained higher, the lowest count being 12,500 and the highest, 36,000. The eosinophiles are uninformative and the juveniles are not more than moderately increased at any time, their average being 3.8 and the highest count, 6. As a group, the bands are only slightly increased, their average is 9.3 and the highest count, 17. This compares favorably with the stab count in the acute and the acute non-perforated gangrenous appendices. In none of these cases is there a pronounced shift to the left. The segment range is fairly constant and the counts are not extreme, low is 64 and high is 80. The average is 75.9 and this is found to be similar to the average met with in the acute and the acute gangrenous appendices without perforation. The range in the total percentage of the neutrophiles is maintained at a high level but is shorter and more limited than in any of the other groups, while the



average is 89%. The nuclear index varies considerably. In cases 4 and 6 there is an almost total neutrophilic count, in the former a total of 98%, while in the latter the percentage is 99.

Table X

APPENDICEAL ABSCESS—THREE MONTHS DURATION									
Female: Age 39 Years									
NEUTROPHILES									
Date	W.B.C.	Ju.	Bds.	Seg.	Mon.	Lymph.	% Neut.	N.I.	
4-15-36	20,000	0	15	72	5	8	87	4.8	
4-16-36	Op.	20,000	0	16	72	2	10	88	4
4-18-36	28,400	24	0	64	4	8	88	2	
4-24-36	24,400	0	38	47	4	11	85	1	
4-27-36	22,800	0	49	40	4	7	89	—0	
4-28-36	25,000	2	31	57	5	5	90	1	
5-1-36	12,500	3	1	74	13	9	78	18	
5-2-36	16,500	0	64	27	2	7	91	—0	
5-4-36	15,000	0	25	57	11	7	82	2	
5-6-36	16,500	0	35	51	5	9	86	1	
5-8-36	21,000	4	35	51	3	7	90	1	
5-11-36	18,600	8	49	34		9	91	—0	
5-13-36	14,000		24	62	4	10	86	2.5	
5-15-36	14,500	2	18	66		14	86	3.3	
5-18-36	18,500	2	14	70	6	8	86	4.3	
5-20-36	13,000	4	26	54	4	12	84	1	
5-22-36	18,500		10	77	4	9	87	7.7	
5-25-36	16,800		15	69	8	8	84	4—	
5-27-36	6,500	Eos-2		71	7	20	71	71	
5-29-36	12,500	6	37	49		8	92	1.4	

Table 10 illustrates the course of an appendiceal abscess. From the history, it appears that the date of the onset occurred three months previous to the admission to the hospital. The white blood cell count was 20,000, the bands were 15 and the segments 72 for a total neutrophilic count of 87% and a nuclear index of 4.8. On the day of operation, the count was approximately the same. Two days later, the white blood cell count had increased to 28,400 and with the juveniles at 24 and the segments at 64, a regenerative shift was present. On the eighth post-operative day, there was a decrease in the white blood cells, an absence of juveniles and the bands numbered 38 with a decrease in the segments to 47. This was evidence of a degenerative shift. On the eleventh post-operative day, the condition was slightly worse and somewhat better on the twelfth. On the fifteenth post-operative day, her condition was poor and intravenous medication was resorted to. In the presence of a very severe infection and with a white blood cell count of only 12,500, 3 juveniles, 1 stab, 74 segments for a total neutrophilic count of 78% and with 13 monocytes present it appeared that the patient had rallied as much as she was able. This was confirmed by a blood count on the following day, when the bands numbered 64%. This seemed to be a turning point in her condition and except for an occasional slight disturbance, she made slow but steady progress. One month after operation, there was considerable improvement both in the blood count and the clinical aspect of the patient. On May 20, there was

a slight change in her condition, an increase in the stabs was found but at the same time there was an increase in the lymphocytes. During the seventh week of her illness, the stabs gradually decreased and the lymphocytes showed an increase with the nuclear index averaging 7. On the forty-first post-operative day, her temperature rose late in the afternoon to 103 F., and there were rales in both lungs, suggesting a probable broncho-pneumonia. The following day, the blood findings were: juveniles 6, stabs 37, segments 49, for a total neutrophilic count of 92% and a nuclear index of one plus. Her temperature remained between 102 and 103 F. On the forty-third post-operative day, her temperature dropped to 100 F. and her general condition was much better.

Table XI

TABLE XI—MISCELLANEOUS									
NEUTROPHILES									
Case	W.B.C.	Eos.	Ju.	Sta.	Seg.	Lym.	Mon.	% Neut.	N.I.
1	10,000	.....	9	45	31	10	5	85	0
2	16,000	1	6		76	13	4	82	12
3	14,000		4	2	73	12	9	79	12
4	16,000			2	86	6	6	88	43
5	23,000		1	1	94	4		96	47
6	8,800	2		1	69	22	6	70	69
7	9,500	2		1	74	17	6	75	74
8	6,875	1		1	82	15	1	83	82
9	12,000	1			83	16		83	83
10	15,000				86	7	7	86	86
11	12,000				97	3		97	97

In table 11, eleven unusual cases are grouped. Case number 1, that of a chronic obliterative appendicitis, has only 10,000 white blood cells, but a severe shift to the left; 9 juveniles, 45 stabs and a nuclear index of —0. Case number 2, an acute appendicitis, with 16,000 white blood cells, shows a mild regenerative shift. Cases numbered 3 and 4, both acute perforated appendices, have practically no shift, most remarkable in the latter. In the 5th case, there are 23,000 white blood cells, no shift to the left, but 94 segments present for a total neutrophilic count of 96% and yet the diagnosis was chronic cystic appendicitis. The remaining cases have no shift to the left. The 11th case is remarkable for a segment count of 97% in spite of a white blood cell count of 12,000. These were put aside and considered of importance in bringing out the fact that the Schilling Count is not one hundred percent dependable.

For comparison between acute salpingitis and acute appendicitis and again between salpingitis with pelvic abscess, table 12 has been prepared. It



Table XII

Case	W.B.C.	ACUTE SALPINGITIS NEUTROPHILES					%	N.I.	Sed. Rate
		Eos.	Ju.	Bds.	Seg.	Mon. Lymph.			
D-30	16,500	0	1	4	87	2	6	92	17
C-25	14,500	0	0	5	83	6	6	88	15
D-22	21,000	2	3	5	77	5	8	85	9.6
A-22	24,600	0	7	5	75		13	87	6
SALPINGITIS AND PELVIC ABSCESS									
M-22	13,000	0	3	23	61	8	5	87	2
M-22	22,400	0	0	23	67	5	5	90	2
M-22	20,800	0	2	20	65	6	7	87	2
M-22	14,500	0	0	2	79	11	8	81	39
ACUTE APPENDICITIS—ALMOST GANGRENOUS									
C-25	14,500	0	2	8	84	3	3	94	8.4

will be noticed that in the acute salpingitis there is usually no shift to the left, while in salpingitis with a pelvic abscess, there is a shift to the left. For differential diagnosis the blood count must be considered along with the history, symptoms, clinical findings, vaginal smears and an estimation of the sedimentation rate. Case C-25 was seen in December of 1935; had a white blood cell count of 14,500, juveniles 2, bands 8 and segments 84, for a total neutrophilic count of 94%. The pathological report came back with a diagnosis of acute appendicitis almost gangrenous. The same patient was seen six months later with a white blood cell count of 14,500, which was the same as that of six months previous. There were no juveniles present, bands numbered 5, segments 83, a total percentage of neutrophiles of 88 and a nuclear index of 15. The sedimentation rate was 66. The differential diagnosis in this case was not difficult because the appendix had been removed six months before.

Summary

The Schilling Hemogram is a decided improvement over the Ehrlich differential blood count. It is more informative and of greater corroborative evidence. Through it, there will be a better interpretation of the actual condition. Its value as a diagnostic sign and as a prognostic measure has been confirmed.

REFERENCES

1. Carlson, Herbert A., and Wilder, Lucretia. The Schilling Hemogram in Appendicitis. Archives of Surgery, Feb., 1935.  
2. Goodale, Raymond H., and Manning, Evelyn. Schilling Index in Acute and Non-acute Appendices.  
3. Harter, John S., and Lyons, Champ. Surgical Applications of Schilling Differential Blood Count. Surg. Gyn. and Obs., Feb., 1933.  
4. Schilling-Gradwohl. The Blood Picture.  
5. Lewis, Dean. Practice of Surgery.  
6. DeCosta. Modern Surgery.  
7. Hare. Practice of Medicine.  
8. Lichty in Tice's Practice of Medicine.  
9. Osler and McCrae. Principles and Practice of Medicine.

PROVIDENCE MEDICAL ASSOCIATION

Minutes of the November Meeting

The regular monthly meeting of the Providence Medical Association was called to order by the President, Dr. William S. Streker, on Monday, November 2, 1936, at 8:50 P. M.

The minutes of the last meeting were read and approved.

The Secretary read an announcement of the Clinic Day to be held at Pawtucket Memorial Hospital on November 4, and an announcement of the meeting to be held in Sayles Hall on November 16, under the auspices of the Women's Field Army of the American Society for Control of Cancer.

An obituary on Dr. Byron J. Lillibridge was read by Dr. Jesse E. Mowry and it was voted that this be spread on the records and a copy sent to the family.

The President spoke on Contract Practice and sounded a note of warning for new and younger members to be wary of entering into such contracts.

The President appointed Dr. Edward S. Brackett and Dr. Harry C. Messinger to act as an obituary committee for the late Dr. James W. Leech.

The scientific program was given by Drs. Franklin P. Lowry and William T. Green of Boston, who spoke on The Practical Use of Physical Therapy. Dr. Lowry described the electromagnetic spectrum. He discussed various forms of apparatus for use in physical therapy, dealing especially with light, high frequency currents and artificial fever. Dr. Green discussed the simpler forms of physical therapy such as guided active exercise, massage, and baking, and the use of these measures in such conditions as infantile paralysis and fractures. The papers were discussed by Drs. William N. Hughes, William A. Horan, and Hugh E. Kiene.

Meeting adjourned at 10:30 P. M. Collation was served.

Respectfully submitted,

HERMAN A. LAWSON,  
Secretary

When a physician is called to the patient of another physician during the enforced absence of that physician, the patient should be relinquished on the return of the latter.  
*From the Code of Ethics of the A. M. A.*

## THE RHODE ISLAND MEDICAL JOURNAL

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## HEALTH INSURANCE PROSPECT

In a recent publication by the Public Relations Bureau of the New York State Medical Society, the quality of medical care under a compulsory health insurance plan is discussed. The viewpoint that a poorer grade of students will choose medicine as their field of endeavor is predicted by apparently sound reasoning.

The article shows the tendency of the most brilliant youthful minds to gravitate toward the occupation offering the greatest fame and reward from the time of the ascendancy of the church down through the time of the industrial expansion. During this latter time medicine also made its amazing progress with no reason to doubt its continuance if left undisturbed by government influence. The public of course benefited in direct proportion to the progress of scientific medicine.

Under compulsory health insurance, however, what fame and reward awaits a brilliant youth after his preliminary and medical education, internship and a post-graduate course? Certainly there will be no fame or reward in a government job. There will be no incentive in treating an assigned number of patients in a given time.

What type of student then will choose medicine as a career? Instead of the brilliant one who alone is able to enter medical school, the future student and doctor will be a far less able one who will be contented with a living rather than fame. A consequence therefore will be that the death rate will rise to the level of that of every other country where compulsory health insurance is in force and the public will have to be contented as it has been in Russia with very little or no real medical care.

G. W. W.

## DR. W. LOUIS CHAPMAN

And so he is gone. Gone before his expected time. This talented and versatile man, a musician of exceptional ability, pianist, organist, cellist, a keen and exacting critic of music, an energetic, industrious, capable physician alert of mind and a well-nigh brilliant entertainer.

To those he has left our heartfelt sympathy goes out. If we may offer an apostrophe to his memory we would say: Dr. Chapman, it is our unfortunate and mournful privilege to salute you.

F. N. B.

## OLD FRIENDS ARE BEST

With deep regret, the JOURNAL notes the death of one of its most highly valued contributors, for the past fourteen years a faithful member of its Editorial Staff. For many years, Dr. William Louis Chapman was an active member of the Staff of St. Joseph's Hospital, conducting his service with due interest and with enthusiasm for original investigation. In medical research, he was awarded the Alvarenga Prize of the College of Surgeons of Philadelphia for an essay on "Post-operative Phlebitis, Thrombosis and Embolism," and the Fiske Fund Prizes of the Rhode Island Medical Society: XLVI, on "Autointoxication as a Cause and Complication of Diseases," XLVIII, on "Sequellæ of Gonorrhœa in Both Sexes," and LV, on "Etiology, Pathology and Treatment of Phlebitis." From his scientific research came valuable improvements in the art of photography, general and Roentgenological. In his early youth, Chapman studied music intensively. At the age of seventeen, he was organist and choirmaster at the Church of the Immaculate Conception at Lynn, Mass. Here he gained the exhaustive knowledge of sacred and classical music which was the wonder of the audiences to which he later lectured on musical topics and the delight of the readers of his musical criticisms. Many of Louis Chapman's oldest friends will best remember him, not as the skilful physician, the brilliant critic, the tireless seeker of truth, but as a master of the church organ, on some quiet afternoon, giving the great instrument free rein, and leading his intimate audience through an entrancing maze of Beethoven Symphonies and the Fugues of Johann Sebastian Bach.

A. H. M.

## THE CADUCEUS CLUB

Discussion of Socialized Medicine, in the face of present economic and social unrest, has maintained the interest of the entire medical profession. Influential politicians, sagacious social workers, through passionate oratory and newspaper propaganda, seriously endeavored to discredit the time honored profession. Through proposed legislation they endeavored to shape our professional lives along policies which, through erroneous and incomplete statistics, apparently were beneficial to the economic and social status. No subject concerning the medical profession seemed so fraught with power to stir the profession to action as socialized medicine. Committees were organized, public lectures were given by members of the various medical societies, legislators were approached. To quote from the 1936 Annual Address of the President of the American Medical Association: "There have been times during the past two years when it appeared that disaster was just ahead, when government, in effort to extend social reform, appeared ready to reach out for the control of medical practice, and those who are familiar with the results of such government control in other countries contemplated this step with grave misgivings. But the leadership exercised by you over a united medical profession and its influence on public opinion were wise and effective and no such change was accomplished."

Now we are in a lull after the storm. What the future holds time only will tell. Shall we wait inactive until the writing again appears on the wall? With this thought in mind twenty-two Pawtucket physicians, after due consideration, formed the Caduceus Club. The purpose of this club is to crystallize the opinion of medical men on problems affecting their welfare in relationship to the community and to each other. The membership is limited to physicians residing or practicing in Pawtucket. Meetings are held monthly except in the summer and are an open forum for exchange of opinions. Here we meet each other and get acquainted, discuss our problems and arrive at some solution. Numerous committees are functioning: an educational committee is arranging a program of lectures for the public in Pawtucket by members of the group; a credit rating committee has established a medical credit rating bureau which is operating to the satisfaction of all; an investigat-

ing and grievance committee and others which have definite problems to solve. We are interested in everything medical; our programs are not social, not didactic from the scientific standpoint; other societies of which we are members arrange these for us. The economic situation of our practice and the community health are our chief objectives. During October of each year the Club, with approval of the Medical Society, sponsors a diphtheria campaign with entire co-operation of the local and state health departments.

The definite agreement on fees in lodge, insurance, industrial, government and group work holds untold future possibilities. When we as physicians realize our duty to the community at large, both the physician and the community will benefit. The community will become medical minded and assured that the practice of medicine is uniform as regards ethics. The forgotten general practitioner will be restored to the pinnacle he once occupied, and Socialized Medicine will never be attempted in Pawtucket.

Members of the Caduceus Club will be glad to meet physicians of other communities who contemplate formation of similar clubs and explain the finer operations of the Caduceus Club.

T. A. KROLICKI

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The monthly meeting of the Caduceus Club was held at the T. K. Club November 9, 1936. The meeting was called to order by the President, Dr. Thaddeus A. Krolicki.

Dr. Farrell, chairman of the Education Committee, announced the beginning of a series of medical lectures to be given by club members during the winter season, the first to be given November 17, 1936. Lectures will be given on alternate Tuesdays.

The annual banquet of the Club will be held the second Monday in January. Dr. Robert Henry was appointed chairman of the Banquet Committee by the President.

It was voted, following a report by Dr. Kelly, that the Club contribute twenty-five dollars to the Community Chest.

Dr. Sprague reported the names of five physicians for membership. Action upon these applicants will be taken at the December meeting.

A collation was served, after which the meeting adjourned.



### Personal Notes

The funeral service for Dr. William Louis Chapman was held at his late residence, at noon, on November 18, and was conducted by Reverend Augustus M. Lord. Following a request which Dr. Chapman had made, the Andante movement from the C. Minor Sonata, No. 1, of Saint Saëns, was played by Jean Bedetti, cellist, and Felix Fox, pianist, distinguished Boston musicians and life-long friends of Dr. Chapman. The Rhode Island Medical Society and the Providence Medical Association were represented by officers and many members. The Staff of St. Joseph's Hospital, of which Dr. Chapman was a long-time member, was represented by the entire Executive Committee of the Staff, including Drs. A. G. Fidanza, E. F. Burke, W. R. McGuirk, W. S. Streker, F. E. McEvoy, W. A. Horan, J. P. Cooney. The ushers were Dr. F. E. McEvoy, Dr. G. F. VanBenschoten, Dr. A. H. Miller, Sigmund W. Fischer, Jr., Esq. and Mr. Ellery L. Wilson, Jr.

At St. Joseph's Hospital, two new subdivisions have been added in the Department of Medicine: Diabetis, in charge of Dr. Casimer J. Miga, and Allergy, under Dr. Frederick R. Riley.

October 27. An attractive program was presented at the regular meeting of the Malpighi Club. Dr. William Newton Hughes gave the principal address, on the subject "Neuropathology." Dr. Vita L. Raia sketched the history of "Italian Medicine in the 17th Century." Dr. William P. D'Ugo read a short paper on "Prostatic Massage."

November 10. At the regular monthly meeting of the Amos Throop Medical Club, Dr. Cecil C. Dustin was the guest speaker; his topic, "Hypothyroidism."

November 12. A regular meeting of the Staff of St. Joseph's Hospital was held in the auditorium of the Nurses Home. Right Reverend Peter E. Blessing, D.D., V.G., gave the opening address. Dr. Jerome J. McCaffrey read a paper on "Spinal Epidural Abscess" which was discussed by Drs. Donley, McDonald, McEvoy, Horan and Hamilton.

November 15. Attendance at the Sunday afternoon lecture at the Medical Library Auditorium was more than 150. Dr. Philip Solomon and Dr. Hugh E. Kiene spoke on "Why People Misbehave." Dr. Solomon treated the subject from the pediatric standpoint and Dr. Kiene from the adult

side. Dr. John E. Donley supplemented the lecture with remarks from the psychiatric standpoint.

November 16. At the monthly meeting of the Thirty-four Medical Club, Dr. Adolph W. Eckstein spoke on "The Question of Drainage in Peritonitis." After reviewing the anatomy of the peritoneum and classifying the varieties of inflammation which may affect it, he cited the arguments of many authorities, for and against drainage. In the discussion which followed, the majority favored the use of drains in localized inflammation but opposed drainage for general peritonitis.

November 17. At the regular monthly meeting of the General Staff of the Homeopathic Hospital of Rhode Island, Dr. Irving Walker, Chief Surgeon at the Boston City Hospital, spoke on "Abdominal Complications Following Surgery."

November 20. At the monthly meeting of the Friday Night Medical Club, Dr. Frederick V. Hussey read a paper on "Special Phases of Common Duct Surgery."

November 22. The Sunday afternoon lecture at the Medical Library Auditorium was given by Dr. Frank B. Cutts on the subject, "Facts and Fancies of Rheumatism." The lecture by Dr. Frank W. Dimmitt on November 29 completes this series. Increasing attendance indicates the value and appreciation of these lectures.

### Rhode Island Hospital Notes

Dr. Henry Atha, who completed his internship Nov. 1, was married on Nov. 16 to Miss Grace MacTavish, a graduate of the Rhode Island Hospital Training School for Nurses. The ceremony was performed by the groom's father at his home in Groton, Conn. Dr. and Mrs. Atha are spending their honeymoon in New York City. They expect to take up residence in Thomaston, Conn.

Dr. Palmer Congdon of Woban, Mass., Harvard Medical 1936, started his internship on Nov. 15.

Born in New York City November 13, 1936, to Dr. and Mrs. Russell Scobie—twins, Katherine and Russell. Dr. Scobie interned at the hospital from 1929 to 1931.

Dr. George Matteson has taken up residence for the winter at 133 Pitman Street.

Dr. Louis Chapman passed away on November 15th at his home in Providence. Dr. Chapman was on the Surgical O. P. D. Staff from 1904 to 1908.

Dr. Elliott Shaw is convalescing at his home after an illness at the Jane Brown Hospital.

Dr. George Warren Gardener, a member of the staff of the hospital from 1901 to 1924, passed away November 13, 1936, in Damariscotta, Me. He was 63 years of age.

Priscilla, daughter of Dr. William Murphy of Brookline, Mass., was killed in a cabin plane crash near Marcellus, N. Y., on November 16. Dr. Murphy interned at the hospital in 1919-1921. In 1934 he was co-winner of the Nobel Prize for Medicine. Priscilla, although only sixteen years of age, was a licensed pilot. She was born during Dr. Murphy's internship at the R. I. H.

Dr. Wilfred Pickles has returned from Bethel, Maine, where he convalesced after an operation at the Jane Brown Memorial.

### Memorial Hospital Notes

An example for the hospitals of Rhode Island in the conducting of clinics was given at the Memorial Hospital on Wednesday, November 4th. An attendance of approximately three hundred and fifty doctors spent the day at the hospital. It was noted that there were a large number of general practitioners present in addition to some of the leading men in the different specialties from the state. All the orthopedic men from Rhode Island as well as the orthopedic men from Fall River, New Bedford and some from Boston attended.

From information received as to the conduction of these clinics, they were not just haphazard preparations but are clinics prepared throughout the year by the various services. The arrangements are definitely planned so that there is no hitch on the clinic day, different clinics being conducted on time and proper arrangements made for the men attending to know just where they are going and what they are to see. It requires co-operation between the different services and the different men on the staff to have them successful. That this is being done is evidenced by the increasing number of physicians that attend the yearly clinics. There are enough of the younger men on the various services to carry out considerable of the preparation so that the chiefs and assistants may correlate and add to their own material.

The invited guest speakers were loud in their praise of the way the clinics are conducted and expressed themselves as well repaid for their trip to Rhode Island to contribute to the success of the clinics. These clinics have become an established institution at the Memorial Hospital, being held at the same time each year.

Dr. Frederick A. Webster has been appointed to the Medical Service, O. P. D.

Dr. Thomas J. Dolan has been appointed to Pediatrics, O. P. D.

Dr. John F. Kenney gave a talk to the Memorial Hospital Nurses Alumnæ on "Medical Conditions in Russia and Scandinavian Countries."

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### RECENT BOOKS

PRINCIPLES AND FOIBLES OF CANCER RESEARCH IN REGARD TO ETIOLOGY AND NATURE. By William Rienhoff, Sr., F.A.C.S. Waverly Press, Inc., Baltimore, Maryland, 1936.

In a book of 165 pages containing 611 references to the literature on cancer research the author has tried to find a way through the maze of opinion, theory, and speculation which surrounds present day knowledge of the cancer problem, and by presenting the known facts which have been established and trying to fit them into a logical pattern, to suggest some practical hints towards a rational view of a probable etiology and nature of cancer, to point in the direction where a solution might lie in hiding, and try to map out the road by which to reach it! To attain his object, his direction, he feels it necessary to call on reason to draw from what premises are actually known, or generally recognized, certain probable conclusions, and then to direct experiment and research towards proving them.

Space does not allow a full discussion of the train of logic and discussion of theory and opinion on which the author comes to his conclusions. Suffice it to say that he seems to have covered the ground thoroughly, at least to have brought in for analysis all the more important considerations as evidenced by his multitude of world renowned authorities. The author comes finally to certain conclusions towards which fact and reason seem to point with, to him, almost certainty. These are:

- (1) Cancer is an infectious growth.
- (2) The cancer cell is a dualistic organism in constitution and action, consisting of a living filtrable virus and a fixed living body cell.
- (3) The interaction between the two is that of an actual cell invasion of the germ into a cell deficient in its impermeability; and to the progress of the germ into the cell nucleus where cancer development really starts.
- (4) Sarcoma is the outcome of a germ invasion in subcutaneous lesions; carcinoma is the outcome of invasion into a defective cell in process of repair.
- (5) .....
- (6) Internal propagation of cancer takes place by coherent descendants through cell proliferation and by disjunctive metastases, not by mere contact.
- (7) Cases of apparent inheritance are due to prenatal and early postnatal virus invasion.
- (8) Cancer virus has to be considered ubiquitous, persistent after the death of the cancer cell, capable of



independent extraneous existence and transmissible in as yet obscure ways. An outright declaration of non-transferability of cancer is not appropriate.

With these conclusions in mind the author then makes suggestions as to the path future research should follow with the hope that when his desired facts are demonstrated that his reasoned conclusions will be shown to have pointed the way.

The book seems to the reviewer to be exceedingly well written. To the student of research it should be well worth the effort and time required to follow its argument. It is not a book to be lightly skimmed over and tossed aside, but calls for considerable concentration and re-reading. Whether the virus theory will prove the right one or not, the author seems wholly convinced that it will. We shall watch future development with renewed interest. We gladly recommend the book to all who are interested in the etiology and nature of cancer.

G. W. WATERMAN.

MEDICAL CLINICS OF NORTH AMERICA. Issued serially, one number every other month. Volume 20, Number 2. St. Louis Number—September 1936. Octavo of 350 pages with 24 illustrations. Per Clinic year July 1936 to May 1937. Paper, \$12.00; Cloth, \$16.00 net. Philadelphia and London. W. B. Saunders Company, 1936.

The September copy of the Medical Clinics of North America is the St. Louis number. A symposium is given on the Endocrine system with papers as follows: MacBryde, Borderline Endocrine Disturbances; Deutch, The Diagnosis and Treatment of Endocrine Infantilism; Bulger, Endocrine Obesity; Barr and Manbacher, The Treatment of Pituitary Insufficiency and Hyperfunction; Aitken, Diagnosis and Treatment of Hyperinsulinism. Following this are eighteen papers on various subjects including excellent discussions on Peptic Ulcer, the treatments of Uremia, Bronchial Asthma, Myocardial Insufficiency, Pulmonary Bleeding, Emphysema, etc. Space does not allow a detailed review of all these papers. A few that particularly appealed to the writer will be mentioned.

In the Diagnosis and Treatment of Hyperinsulinism, Aitken presents a case which at operation was found to be caused by an adenoma appearing in the middle of the pancreas. Removal of this tumor brought a cure. The symptomatology is well discussed. The differential diagnosis is well presented and the pathology is carefully outlined. For treatment from a medical standpoint, he suggests a high fat diet (60 gms. carbohydrate, 60 gms. protein, and 210 gms. fat) in which the depressing effect of insulin stimulation is utilized in the large fat ratio intake. The usual high carbohydrate diet he feels is apt to lead to too much adiposity.

Hempelmann in a paper on Encephalitis gives an excellent review of the disease, outlining its various forms, and various etiological factors, with particular emphasis laid on the recent epidemic in St. Louis.

Larimore in a discussion of Peptic Ulcer lays stress on the factors which predispose to the condition and urges that the disease be approached not from a surgical standpoint but from that of treating the patient as a whole and thereby disestablish the factors which promote the development and progress of the lesion.

With the passage in Rhode Island of a bill making silicosis a disease compensatable in industry, Singer's article on the Silicosis Problem is of interest. A discussion of the symptoms, physical signs, X-ray examination is clearly given. Those physicians who are doing industrial medicine will be repaid if they read this article.

Of interest to the pediatricians are four articles dealing with infantile colic, functional disorders of children, vomiting of the newborn, and eczema. Again it is stated that each author has handled his problem well.

The articles on the treatment of myocardial insufficiency sum up the present knowledge of the profession on these subjects. They give us nothing more than any textbook, yet prove interesting and refreshing to read.

Eyermann in his discussion of the Treatment of Bronchial Asthma sums up the armamentarium at the hands of the physician. He emphasizes the employment of small frequent dosage of adrenalin, rather than the infrequent large dose, and feels that the best therapeutic results are obtained by a study of the patient as a whole, and applying treatment guided by the integration of this knowledge.

This volume again maintains the high standard set by previous issues, and should be noted by every physician desirous of keeping up to date.

F. H. C.

EXOPHTHALMIC GOITER AND ITS MEDICAL TREATMENT. By Israel Bram, M.D., Medical Director, Bram Institute for the Treatment of Goiter and Other Diseases of the Ductless Glands, with a Foreword by R. G. Hoskins, Ph.D., M.D., Second Edition Completely Revised and Enlarged. Pp. 456 with 79 illustrations. Cloth, \$6.00. The C. V. Mosby Company, St. Louis, 1936.

This work is an excellent treatise on the etiology, diagnosis, and principles of the medical management of exophthalmic goiter based on personal experience with over 5000 cases of this disease observed within a period of twenty-five years. As the author states in the preface, this book is largely an exposition of the broad definition of the term *medical treatment* as he has practiced it for many years. The work is intended to assist in perfecting the efforts of the surgeon and roentgenologist in restoring their subjects of Graves disease—a class of patients which has heretofore been a perplexing and tantalizing problem—to permanent health, usefulness, and happiness. It is directed to the internist and general practitioner who wish to apply a rational medical regime as the "sole" treatment.

Briefly, it is the aim of the author in the study of the cause and cure of Graves disease, not merely to concern with the thyroid, but with humanity itself. And, therefore, in outlining a successful course of management of these patients the physician must have in mind the training of such patients to face the struggle for existence with the confidence and imperturbability so essential to self-preservation.

The reviewer is amazed at the enormous amount of fine and useful material contained in this small handbook, and is particularly impressed with the valuable chapter on psychotherapy in the handling of these sufferers. In the introduction to this chapter he quotes the late eminent physiologist, S. J. Meltzer, "Lighter than air is psychotherapy. Do not practice it consciously. Have a thorough knowledge of your subject which entitles you to speak with conviction; be sincere in your dealings with your patient so as to gain his confidence; have sincere sympathy . . . which ought to manifest itself without obvious demonstration; be practical in your advice and talk to the patient and his surroundings in common sense terms and you will have practiced psychotherapy honestly and successfully . . ." This book is very valuable for what it is—a clear exposition of the medical management of exophthalmic goiter and the author deserves much commendation for his accomplishment of such a purpose.

Internists and general practitioners for whom this volume is primarily intended will be amply rewarded for the time spent in reading the various chapters of this book and may often find it to be a valuable reference work in any endocrinological problem.

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